

NEWARK URBAN RENEWAL PLAN

A DEMONSTRATION GRANT PROJECT

CONSERVATION

REHABILITATION

CLEARANCE

FIRST INTERIM REPORT: PRELIMINARY SURVEY & ANALYSIS
CENTRAL PLANNING BOARD NEWARK, NEW JERSEY
APRIL, 1959

NEWARK URBAN RENEWAL PLAN
A DEMONSTRATION GRANT PROJECT

First Interim Report.....Preliminary Survey & Analysis

Prepared with the assistance of a demonstration grant from the Housing and Home Finance Agency, Urban Renewal Administration, under Section 314 of the National Housing Act of 1954, as amended.

CITY OF NEWARK, NEW JERSEY

APRIL, 1959

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PREFACE

The City of Newark is presently engaged in ambitious urban renewal activities for the revitalizing or rebuilding of existing deteriorating and blighted conditions.

During Newark's three hundred years of growth, physical residential and other facilities in many parts of the city have deteriorated to such an extent that they require either complete clearance and replacement of structures, or in some cases effective rehabilitation and restoration of basic minimum standards, in order to provide decent, safe and sanitary use and occupancy.

Creeping blight threatens every portion of Newark. Together with the existing severely substandard conditions, it has made imperative the establishment of a city-wide comprehensive renewal program in order to deal effectively with these problems. In addition, the comprehensive program is needed to assign priorities to the various individual renewal projects now under active consideration.

The present Demonstration Grant Project was established, therefore, to develop basic principles and study methods to be used in the delineation of all types of renewal treatment areas and to prepare a ten-year renewal program for such areas throughout the city, for the purpose of conservation, rehabilitation and/or redevelopment.

The First Interim Report attempts to indicate our general progress, methods used and data investigated, and to outline the initial criteria which have been formulated. It must be emphasized that the report, preliminary in nature, has not been officially adopted by the City of Newark, and represents merely a summary of our efforts to date.

The city is fortunate in having obtained federal assistance in this undertaking, and it is hoped that this project will be helpful to other communities in their own urban renewal endeavors.

George H. F. Oberlander
City Planning Officer

Newark, New Jersey
April, 1959

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CHAPTER I: BACKGROUND OF THE PROJECT

A. NEWARK'S LOCATION AND HISTORICAL DEVELOPMENT

1. Geographical Note

Newark is the largest city in New Jersey, in terms of population. It is the commercial, industrial and transportation center of the state and its northern region. While it is estimated that over 440,000 people live in the city proper, an additional one-half million reside in surrounding suburban communities. Between two and two and one-half million live in Newark's own metropolitan area. About one-half million persons employed in business and industry commute to Newark every day, which is a higher relative commuting body than is present anywhere else in the United States.

Located approximately ten miles west of New York City, Newark is the second largest city in the New York-Connecticut-Northeastern New Jersey Metropolitan Region. It has an important seaport (now being developed into a major East Coast port). It is also the rail and highway hub on the mainland, connecting the vast metropolis with the western and southern sections of the country.

The city occupies the easternmost sector of Essex County, the part of the county which is over 90 percent urbanized. It is bordered on the east by the navigable Passaic River and the Newark Bay. These bodies of water form a component part of the bi-state Port of New York. The municipalities of North Arlington, Kearny, East Newark, and Harrison, all in Hudson County, are separated from Newark by the river. On the South, Newark is bordered by Hillside and Elizabeth, in Union County. On the west, there are Irvington, Maplewood, South Orange, East Orange, and Bloomfield, all in Essex County. The northern neighbor of Newark is Belleville, also a part of Essex County.

The so-called Meadowlands, an extension of a larger marshy region occupying areas immediately west of Hudson River, comprise roughly one-third of the total land of Newark (the total being approximately 24 square miles); but this includes reclaimed sections, such as the airport, seaport, industrial plants, railroads and highways. Topographically, Newark is characterized by a gradual rise from Newark Bay and the Meadowlands to several "hills" in the center of the urbanized area, having an elevation from 50 to 160 feet above sea level. The highest point in the city is 273.4 feet above sea level. It is to be found in the Ivy Hill neighborhood (Vailsburg community), at the extreme western end of the municipal area.

The city has 13 miles of waterfront and 376 miles of paved streets. The seaport, discussed later, occupies approximately 694 acres of land.

2. Historical Note

a. Founding and Early Days

Newark was founded in 1666 by a band of Puritan Connecticut "planters" under the lead of Robert Treat. Political discontent in the Connecticut towns of Milford, Branford and Guilford prompted the closely knit group of Newark settlers to desire a religiously and politically autonomous area of their own and, as early as 1661, negotiations were in progress with Peter Stuyvesant, the then Dutch Governor of New York, who controlled the Newark area. By 1666, however, jurisdiction had passed to the British, and the Newark site was obtained from the Carterets. Subsequently, the Newark founders had to deal additionally with the Hackensack Indian tribe to secure the new settlement, in exchange for commodities. The original Newark land holdings extended westward to the First Watchung Mountain.

Including subsequent arrivals from Connecticut, the new town had increased in population within the first year to an estimated 164 inhabitants by June, 1667.

Among the early settlers was the Reverend Abraham Pierson. He brought with him a part of an existing church congregation from Branford, Connecticut. Today, still actively maintained as the Old First Church of Newark (Presbyterian), it is a congregation much older than the settlement itself. Since Pierson had previously served in Newark-on-Trent, England, it is presumed that Newark derived its name from this connection; the first reference to any local identification as "Newark", appears in a document of January, 1668.

b. Evolution of the Early Plan

In the early days of the town, land was subdivided into lots and allocated to the inhabitants some of whose descendants retained title for many generations. Each settler was given a "home" or "town lot" in the center of the settlement, a "pasturage" in the salt Meadows to the east, and a "farm" or "wood lot" in uplands to north and west. Church land holdings were and are still considerable. Space was reserved for several triangular commons, and Broad Street was laid out as its name implies. Its ample width is a special asset to the city at the present time. A bold cruciform street plan with firm anchors, and related diagonals dates from the early colonial era and was reinforced by further development into the semi-Baroque, semi-formal plan which remains to this day. The basic layout of the center of the city is clearly the advantageous product of these combined elements.

Newark is unusual among Eastern cities. Its core with its very wide principal street and related spatial treatment is similar to certain Great Lakes cities. This is combined with the charm and mellow historic characteristics of

New England commons or greens, and southwestern skyline. The typical Eastern hodge-podge and cowpath characteristics are abundantly existent too, but are relegated to the byways.

c. 1680-1800: Historic Structures

Not much of significance is recorded from the period 1680 to the Revolutionary War. Newark, as contrasted with nearby Elizabeth, Union, Springfield, and Morristown, did not play a nationally momentous role in the Revolutionary Era. Only 5 remaining buildings (all "brownstones") are known to date from the 1700's. These include two houses each about 250 years old, (circa 1710). The first is the Plume House on Broad Street, opposite Lackawanna Station. Plume House is famous also as the building in which celluloid photographic film was invented and as the former rectory of the adjoining historic Episcopal House of Prayer. The second of these buildings is the Sydenham House in Forest Hill. Lyons Farms schoolhouse relocated in the garden of Newark Museum, was erected in 1784. A portion of Trinity Cathedral in Military Park dates from 1743, although most of the construction is of 1808. The present Old First Church edifice, replacing an earlier one, was completed in 1791.

Illustrious pastors of this church in addition to Abraham Pierson, Sr. included Abraham Pierson, Jr. who became the first rector of Yale, and Aaron Burr, father of the Vice President. Burr also founded Princeton University in his Newark home where he conducted the university's first classes.

d. 19th and 20th Century: Industrial Rise

Alexander Hamilton frequented Newark. He proposed what is now McCarter Highway (Route 21) to extend through the Passaic Valley to his planned industrial city of Paterson. Newark, by the early 1800's had embarked extensively on its career as an industrial center of national prominence. Industry was diversified from the start, and the city became firmly identified with the large eastern regional market for basic and processed commodities. By the 1850's the city had witnessed a German influx including notable "beer barons". They started Newark's rise as one of the nations four major brewing centers. The ensuing era was one of other rich Germanic cultural influences as well. It is worth mentioning the famed but now demolished Krueger Auditorium, and the numerous local German singing societies of national renown. Many immigrants, including a large Jewish group, also came from Poland, Italy, Ireland, and several other countries. They brought diverse cultural overtones to the city, especially the Ironbound community. These migrations, from the mid-1800's fostered the rapid local growth of Catholicism and Judaism.

Newark Historical Population Growth

1666 - 84
1766 - c. 850
1820 - 6,507
1850 - 38,894. 1830-1850: Immigration chiefly from Ireland and Germany.
1866 - 94,800
1880 - 136,508
1900 - 246,469
1910 - 347,469. 1866-1910: Increasing numbers from Italy and eastern Europe, continuing numbers from Ireland and Germany.

Through the 1920's, the city maintained its basic and predominant characteristics of the early days. The well-to-do, long settled families lived graciously and sometimes pretentiously in and around what is now Downtown. Fashionable areas were located along Broad Street, around the parks, along High Street, and Clinton Avenue. Mt. Prospect Avenue and Roseville were and still are also desirable addresses. Many attractive mansions remain amidst changed surroundings, along with fine 19th century churches. Most notable among the latter, is the Sacred Heart Cathedral, begun in the 1890's but not completed until 1954. This is one of the important cathedrals of the American Continent. It is ruggedly pretentious French Gothic.

Among the more recent ethnic changes is the rapid rise of Negro population. Many Negroes have advanced to notable social, professional and cultural positions within the city.

Before the turn of the 20th century, Market Street was the principal business street. It led from the former Passaic and Hackensack River ferries, running generally parallel to the Morris Canal, past the old Market Street Station to the Courthouse.

The early decades of the 19th century witnessed an intermittent and stubborn battle between Newark and Elizabeth for the Essex County seat. After the final victory for Newark, over 100 years ago, the Elizabeth area seceded to form Union County.

Newark was incorporated as a city in 1836. The land area of the city has diminished from the original 61 square miles of the former Newark Township. Subsequent annexations (from 1869 to 1939) raised somewhat the total area, but it still remains one of the smallest for any major American city.

By the 1850's, Newark had qualified as a city of metropolitan size with over 50,000 inhabitants. Its growth was the result of its own economic and industrial endeavors. Commutation to New York was never of sufficient magnitude

to account for the growth of metropolitan Newark.

The development of the city had saturated many sections with industries of substantial size, number and variety by the 1880's. The industrial growth continued upward, in terms of persons employed, until about World War I. Although there has been a steady industrial employment decline within the city limits since 1920, the in-city "value added by manufacture" still compares favorably with equivalent figures for such industrial strongholds as Pittsburgh or Boston. Newark's industrial rise was matched or furthered by its famed inventiveness and technology. Boyden, Weston, Morse, Vail and Edison may be noted as great inventors who worked in Newark and vicinity.

e. Recent Development and Economic Emergence

Although Newark became an insurance center in the Victorian Era, the rapid emergence of the city as a major white-collar center, as a financial bastion, and as a capital of regional utility empires did not occur until later. In this connection Newark experienced a vast boom of office building construction in the approximate span of 1925 to 1932. This is impressive even as compared with the then concurrent national boom pattern. As a result, the office plant of Newark is as modern, on the average, as any but the western cities.

Newark is clearly accepted, as 1960 approaches, as the major headquarters city of New Jersey. The Central Business District, in the Downtown, remains one of the nation's most substantial in retail sales and otherwise. In 1954 there were in Newark 6,055 stores, with annual sales at \$660,971,000, and 1,889 manufacturing plants employing nearly 40 percent of the total labor force of over 234,000.

The city maintains its industrial prominence in jewelry, brewing, electrical goods and machinery, metals and metal products, leather, chemicals, paints and plastics, and other products. Its position as an insurance headquarters of national significance has grown.

f. Recent Administrative Changes and Growth Projects

In 1954 the City of Newark established a new Mayor-Council Municipal government which replaced the obsolete city commission form of government. It is a matter of public record that the new administration has forcefully advocated and actively worked to promote urban renewal on all fronts. It has also appointed a Planning Officer responsible to the Mayor, through the Business Administrator, and enlarged the city planning staff.

Due to the city's favorable situation with respect to the regional labor market, combined with the demonstrated resolution of the city government to work for comprehensive renewal throughout the city and other related factors, several of the major enterprises, including the Mutual Benefit Life

Insurance Company, and the Prudential Insurance Company of America, have rebuilt their home office buildings in the city rather than to relocate in the suburbs.

The Mayor has appointed the Economic Development Committee comprising the leading officers of the major business and industrial enterprises and labor representatives. The membership is virtually a "Who's Who" of a large and important section of American business and industry. This group, through its advisory function in relation to the Mayor and its membership connections with the Greater Newark Development Council and the non-profit research agency known as the Bureau of Municipal Research, is working toward the industrial and business renewal of the city, the enhancement of the economic base, and the creation of additional employment opportunities in the Newark area.

Also appointed by the Mayor is the Newark Commission for Neighborhood Conservation & Rehabilitation (NCNCR). This unique group, which works closely with all branches of city government and Newark citizens, is dedicated to better housing through upgrading of codes, law enforcement, slum clearance, neighborhood conservation and rehabilitation, education and citizen participation. Upon the recommendation of NCNCR, Newark has initiated a conservation, rehabilitation and spot clearance renewal project in a portion of the lower Clinton Hill community. Federal approval of the survey and planning application for this project was given in December, 1958.

The Newark Housing Authority is also the city's Redevelopment Agency. Between 1940 and 1956 the Housing Authority has constructed twelve public housing projects containing 7,385 dwelling units. One housing project is under construction, and it will house 1200 more families. This project will be supplemented by adjacent middle income housing, with appropriate commercial and community facilities. A similar development is already underway on two sides of the Columbus Homes low-rent Project. A twenty million dollar, middle income apartment and commercial development will be constructed. In effect, a new and balanced neighborhood is being created within easy walking distance to the center of the city.

Another undertaking of unusual interest is the Newark Colleges Expansion Project which will redevelop the area bounded approximately by Washington, James, Warren, and Lock Streets, near the Central Business District. Sub-standard housing will be cleared to permit the expansion of existing cultural facilities and the construction of a new performing arts center. The Redevelopment Agency is presently preparing an application to the Federal Government for preliminary approval of this project. Among participating institutions are Rutgers University, the Newark College of Engineering, the Newark Museum and the Newark Public Library.

B. PURPOSE AND PROGRAM OF DEMONSTRATION GRANT

1. Aims and Techniques

As of June 4, 1958, the City of Newark entered into contract with the United States Housing and Home Finance Agency, Urban Renewal Administration, for an Urban Renewal* Demonstration Grant, as authorized by Section 314 of the Housing Act of 1954. The project is officially designated as "N. J. D-1".

Generally, the grant is to enable Newark to undertake a comprehensive study of deterioration in the city and prepare a ten-year renewal plan and program. The project is designed to develop and field-test basic principles and methods for the delineation of renewal treatment areas; to establish a ten-year schedule of priorities to carry out renewal within delineated project areas; to develop the measures necessary to implement the appropriate plans for each scheduled renewal area; and to recommend organization and procedures for continuous, annual up-dating of the self-perpetuating ten-year urban renewal program.

Prior to submitting its application for the grant the city had determined that:

- a. The conditions in Newark at the present time are extremely conducive to the successful undertaking of the demonstration grant project;**

*Throughout this report, the term, urban renewal (or simply, renewal), is meant and should be understood in its comprehensive sense as generally being accepted throughout the country. Thus, this concept of renewal involves the following principal elements:

- a. Clearance and complete redevelopment;
- b. Rehabilitation;
- c. Conservation;

--Not only for residential areas but also for commercial, industrial and other non-residential areas.

It also includes code enforcement, community reorganization and other administrative, social and economic measures--public and private--necessary to insure the success of the above principal elements.

**As was explained in the application to the Federal Government, the city, having passed through an industrial revolution; three centuries of development and redevelopment, a major depression, recurrent waves of immigration, and two world wars, has become increasingly aware of the presence of a large number of obsolete community facilities and a large stock of buildings, (commercial, industrial and residential), which require either replacement, rehabilitation or the restoration of at least minimum conditions of safe, decent and sanitary use or

- b. Scientific and objective criteria for the delineation of suitable areas for Conservation, Rehabilitation and Redevelopment and for determining the priority of the necessary programs of action for such areas, are urgently required--not only in Newark, but also in most of the other cities in the United States which are undertaking, or planning to undertake, urban renewal programs;
- c. The proposed demonstration project is urgently necessary to the successful performance of the larger task of securing and capitalizing the gains of public and private rebuilding presently taking place in the city;
- d. The large number of clearance, rehabilitation and rebuilding projects in process of planning or likely to be proposed, need urgently to be studied with respect to:
 - (1) The city's financial capacity;
 - (2) The orderly scheduling of the city's public improvements program;
 - (3) Inter-relation of public works in different project areas;
 - (4) Inter-dependence of prospective renewal projects;
 - (5) Feasibility of combining contiguous projects into one or more General Neighborhood Renewal Plans;
 - (6) Relocation problems;
 - (7) Marketability and land reuse feasibility;
 - (8) The Federally-aided State Highway Program.

Specifically, the purpose of the demonstration grant project

occupancy.

The City Master Plan, prepared in 1947, pointed out that at least one-third of the city's dwelling units were deficient with respect to:

- Major repairs
- Private bath
- Private toilet, or
- Private water supply.

As long ago as 1935, the Newark Real Property Inventory pointed out that roughly ten percent of Newark's residential structures had deteriorated to the point where they were no longer fit for occupancy. The 1950 Census reported that 19.9 percent of the city's reported dwelling units were either lacking in private bath or else dilapidated.

The Master Plan showed that all but the three of the city's very finest residential sections show inroads of blight of some degree; that well over half of the residential area is from 12.5 to over 50 percent occupied by substandard dwellings.

is to achieve the aims listed in the following thirteen items:

- a. To develop criteria for the delineation of urban renewal areas in Newark and to determine in each such area whether the most appropriate type of corrective or preventive action would be predominantly of a Rehabilitation, Conservation and/or Redevelopment nature;
- b. To develop such criteria on an area-wide basis using techniques, to be developed in the course of the study, which rely primarily upon information and data of record, spot field tests and inspections, and other readily available materials, but excluding, where feasible, large-scale structure-by-structure enumerations or mass visitations of a unit-by-unit type, so that dependable but inexpensive means can be devised for this type of area analysis;
- c. To develop such criteria so that the delineated Rehabilitation, Conservation or Redevelopment areas can be designated for the promotion of the following types of urban renewal:

Residential
Commercial
Industrial
Public
Institutional

- d. To apply the criteria developed under the above sections in order to determine the areas in the city which require urban renewal treatment for the next ten years;
- e. To develop a plan of administrative action necessary to achieve renewal in each area delineated for the ten-year period, involving:

Code Enforcement
Relocation
Neighborhood & Community Organization
Traffic Regulation
Mortgage Insurance
Promotion of unassisted renewal by private investors
Coordination with related housing programs
(and various other elements)

- f. To determine the cost and order of priority of carrying out the ten-year schedule of renewal programs; the priorities to be determined on the basis of

(1) Relationship to the effectuation of the city's

Master Plan; and

(2) The priorities set forth for improvements in the city's Capital Improvement Program.

- g. To delineate proposed General Neighborhood Renewal Program Areas combining two or more contiguous Renewal Project Areas in cases where conditions so warrant;
- h. To develop recommendations for workable procedures and organization in order to up-date, on a continuous annual basis, a permanent schedule of priority for execution of urban renewal projects;
- i. To develop workable criteria and rules of procedure for the treatment of individually salvable structures in areas of use transition;
- j. To develop physical design techniques and legal instrumentation, including aesthetic zoning or controls, for the areas designated in the ten-year program;
- k. To develop methods, procedures and proposed organization for implementing appropriate conservation and rehabilitation measures in renewal areas of a predominantly clearance-redevelopment nature;
- l. To develop a generalized plan (including land use, public improvements, finance and relocation) for completion by the end of the ten-year period for all renewal areas delineated;
- m. To develop a generalized plan for the prevention of blight in areas not included in the specific renewal areas proposed by the project study.

2. Financial

The City of Newark will provide one-third of the cost of the project, primarily in the form of staff services. Federal funds for the project are authorized by the Housing Act of 1954, which provide grants of up to two-thirds of the total cost of projects designed to improve urban renewal methods and techniques.

The total project cost will be \$173,517. Of this amount, the Federal Government, through the Housing and Home Finance Agency, Urban Renewal Administration, will pay \$115,678, over the 21-month period of the project. Included in the total amount is \$31,550 as fees for special consultants.

3. Administrative Arrangements and Planning Staff

By agreement with the Federal Government, the City of Newark

is the local public agency undertaking this project. The cooperating municipal or other public agencies are:

- a. Newark Central Planning Board*
- b. Newark Commission for Neighborhood Conservation and Rehabilitation*
- c. Newark Housing Authority and Redevelopment Agency*
- d. Welfare Federation of Newark
- e. Associated Community Councils of Newark
- f. Newark Economic Development Committee*

The Mayor and the Municipal Council of Newark, as the city's chief executive and chief legislative body, are the chief executive officer and the official board, respectively, of the local public agency in charge. The Planning Officer, who is the head of the city's planning staff, is responsible to the Mayor for the over-all administration and direction of the project.

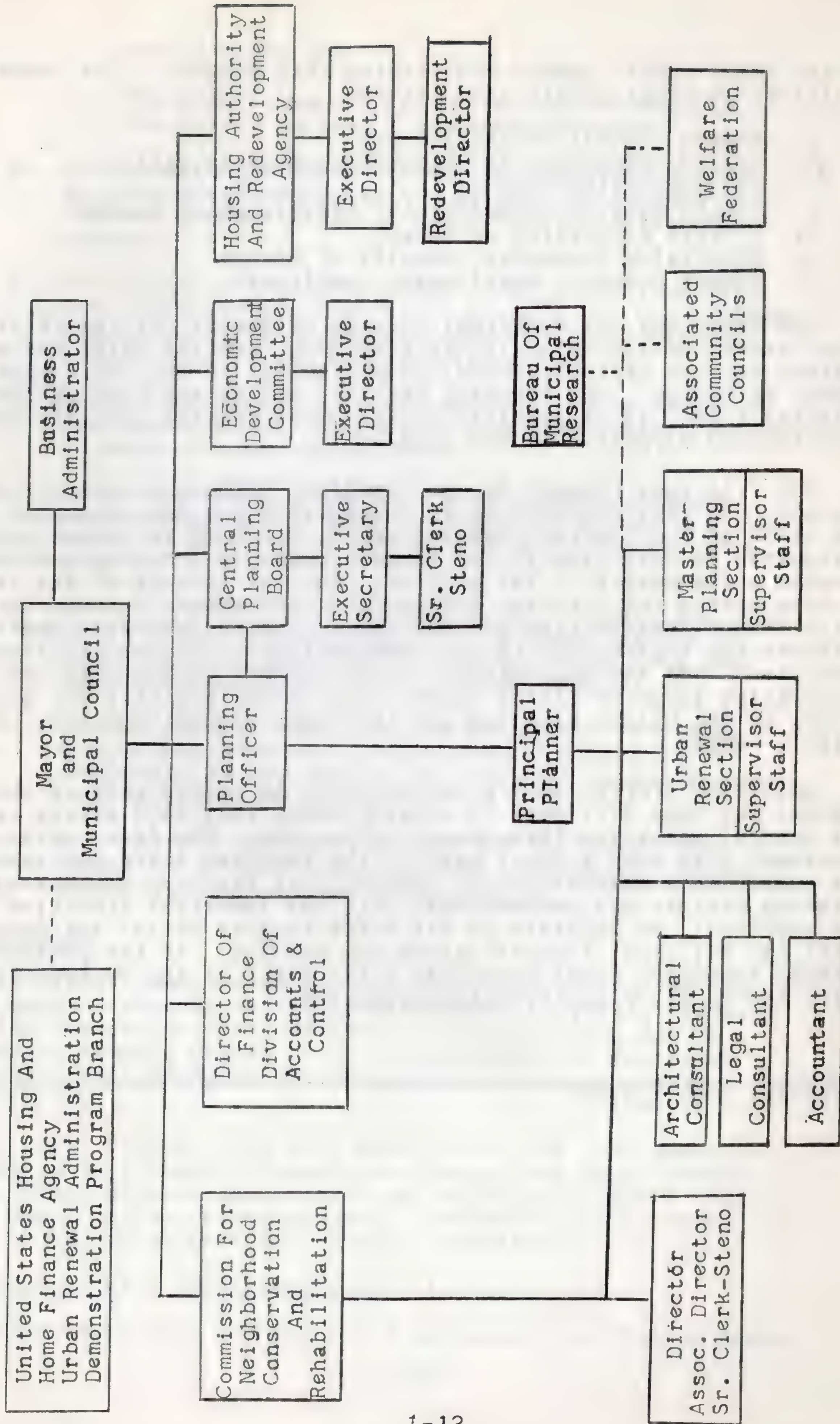
The Principal Planner is the immediate Technical Director of the project. In this capacity he is responsible for the direction of the staff of the Central Planning Board, which is the chief agency designated to make studies and prepare plans in accordance with the program and schedule of the project. For the purpose of the project, he also guides the Director and staff of the Newark Commission for Neighborhood Conservation and Rehabilitation and provides general guidance and supervision of the architectural, housing and legal consultants and the accountant. He maintains liaison with the other cooperating agencies listed above. The Senior Planners are supervisors of the Master Planning and the Urban Renewal Sections of the Board's staff.

Qualified professional planning staff to participate in the project has been difficult to obtain, though this fact merely reflects the general situation throughout the country. The first three months proceeded with only a small part of the required staff available for the preparatory planning work. During that time and afterwards, the Planning Officer was overburdened with the immediate direction of the personnel, in addition to his other regular duties and functions, until the Principal Planner joined the project. At the present time, certain secondary staff vacancies still exist at the Central Planning Board and in other participating agencies.

*Official City Agency

TABLE I - 1

NEWARK URBAN RENEWAL DEMONSTRATION GRANT PROJECT
ORGANIZATION CHART



CHAPTER II: DATA COLLECTION AND SURVEY

A. SYSTEM FOR AUTOMATIC DATA PROCESSING

1. Introduction

At the time when Newark submitted its application for the Demonstration Grant, it was not foreseen that a great quantity of field-collected data useful to urban renewal planning would be available to the planning staff. The project program excluded extensive field investigations. The project was most fortunate, therefore, in obtaining permission to make use of a large volume of data that had been collected as part of a city-wide appraisal of real property in Newark during 1957.

A number of different attempts were made to re-assemble this data through manual processes. These methods were found to be too slow and inaccurate. A system was finally devised of putting the essential information into punch cards and tabulating and calculating it by machine. This method proved to be by far the least costly in terms of both personnel time and money, and probably the most accurate for renewal study purposes.

The original appraisal process, the automatic data processing system, and the resulting information are described in the following pages. It is hoped that the methods described and the system developed will also be of help to other cities which are undertaking the collection and analysis of a large quantity of urban renewal data.

2. Real Property Appraisal Process

During 1957, a complete reassessment of all real property in the City of Newark was contracted to the J. L. Jacobs Company of Chicago. This reassessment was for the purpose of complying with a recent New Jersey Supreme Court decision requiring assessment at "full market value" for tax purposes. Each lot and structure within the city was visited and appraised, with the exception of those properties which were tax exempt at the time of survey.*

*Tax exempt properties include all land or buildings owned by the City of Newark, the State of New Jersey, the Federal Government, such local tax exempt authorities as the Newark Housing Authority, and all properties assessed by the State Board of Assessors, principally railroad property.

a. Field Inspection

The field inspection of each property was the first step used in recording the information necessary for estimating the land and building value. The field operations of the appraiser consisted of:

- (1) entering on individual property record cards the required descriptive information about each parcel of land;
- (2) measuring each principal building and accessory building and entering the dimensions;
- (3) making out an additional property card for each additional principal building on the same lot or parcel;
- (4) preparing an outline ground plan of the buildings and other improvements; and
- (5) inspecting the building exterior and interior and entering required information on the property record card as to building type and use, construction, walls, finish, plumbing, heating, physical maintenance condition and actual age, if obtainable, or estimated age.

Each property record card had entries of the owner's name and the address of the property, together with the block or designated area and lot or parcel number. The individual cards were grouped together in folders by blocks.

b. Appraisal of Land

The main steps used appraising Newark land were as follows:

- (1) land was classified according to use;
- (2) market data was gathered and recorded;
- (3) qualified opinions of land market value were sought and recorded;
- (4) the market data and qualified opinions were reconciled and tentative unit land values were established;
- (5) unit land values for various property classes in each urban community or district were reviewed and correlated;
- (6) the final unit front foot, acreage, and square foot values, were established;
- (7) individual lot and parcel values were determined through the application of unit foot values adjusted for depth, corner influence, and shape and size.

c. Appraisal of Structures

In appraising real property for tax purposes, all factors and available evidences of relative value were given consideration, such as the cost of replacement, the market prices, income from the property, etc., and each was assigned an appropriate weight.

The principal approach of the appraisers of special value to the renewal study was to determine the cost of replacement (new) less accrued depreciation and obsolescence.

(Depreciation and obsolescence are explained below.) This is known as the replacement cost approach. The cost to build a similar building of identical utility was first determined on the basis of local material costs, labor and other construction items. From this cost was deducted an amount to cover the estimated loss due to any changes in the use of the building, and other causes affecting the value of each structure. For any other special condition, appropriate additions or deductions were made.

The following procedures provided for the determination of replacement costs for buildings of similar type and construction: (1) Examinations of typical structures in different sections of the city showed that there are sufficient basic similarities in building type and construction to permit classification into some sixteen groups of classes of buildings; (2) Variations in the construction and size of structures within such groups are reflected by the unit replacement costs attached to the different building classes. The base unit replacement costs are expressed in dollars per square foot of ground area or per cubic foot, and are based on average prices of materials, labor, and other construction items in Newark as of January 1, 1957. Important variations in an individual building from base specifications were accounted for by special additions to or deductions from the base replacement cost.

Once the total replacement cost (new) was determined for each particular building, this cost was multiplied by the final net condition percentage to give the "net depreciated value" of the building. The net condition percentage is a combination of depreciation and obsolescence percentage allowances which were determined from the recorded information on the property record card as well as standards developed to meet local conditions. The replacement cost (new) of any building was set as the maximum limit of allowable value. Deductions for depreciation and obsolescence were made from such replacement cost to cover the estimated losses for all causes from the date of construction to the date of assessment.

The loss in market value which takes place during the life of a building is chargeable to a number of causes. As soon as a building is completed, the materials from which it was constructed begin to deteriorate through wear and aging and the effects of the elements. Unless a reasonable amount of maintenance is provided, the building and its market value depreciate at a much faster rate. Even with normal maintenance, there is an irrecoverable loss factor which cannot be offset or counteracted. This type of depreciation is designated as "physical or age depreciation".

In addition to physical depreciation, there are other losses which are just as real as physical depreciation but which are the result of entirely different causes. These losses are classified under the term of "obsolescence" which will be discussed below.

Physical depreciation factors were applied to the replacement cost to arrive at a preliminary value. Then any factors for special economic obsolescence were applied to the preliminary value to arrive at the current "fair value". The above process was simplified by working in percentages and arriving at a final net condition percentage which, when applied to the replacement cost, gave the current fair value.

d. Physical Depreciation

Physical depreciation is composed of normal depreciation due to age modified upwards by any enhancement due to major alterations, additions or modernization and downwards due to specially poor physical condition.

Actual age, when modified by alterations, additions or modernization is termed effective age. Such alterations and additions may include major additions or improvements in the way of external architectural design, interior partition arrangement, interior trim, heating, plumbing, wiring, lighting fixtures, etc.

Where major alterations or modernization are of obvious advantage to the building, the percentage of appreciation is determined by estimating the probable increase in sales price or increase in life expectancy. The cost of such alteration or modernization, however, does not necessarily always indicate the true enhancement or added advantage. Proper judgment must be exercised in estimating how much the actual age of the structure was reduced to a lower "effective" age.

Three main methods were available for determining the effective age of a building. Each produces substantially the same results and its use depended upon the type of data available.

- (1) Multiply the actual age by the cost of modernization or alteration and divide by the calculated replacement cost. Then subtract this amount from the actual age:

$$\text{Effective Age} = \text{Actual Age} - \frac{\text{Actual Age} \times \text{Cost of Remodeling}}{\text{Replacement Cost}}$$

- (2) Multiply the actual age by the replacement cost before remodeling divided by the replacement cost after remodeling:

$$\text{Effective Age} = \frac{\text{Actual Age} \times \text{Replacement Cost before Remodeling}}{\text{Replacement Cost after Remodeling}}$$

- (3) Estimate the percentage of the structure which has been replaced or modernized. Take that percentage at the number of years from the date of remodeling, and the balance at the number of years from the original date, and calculate a weighted average of the years. (See Appendix Table I.)

Once the effective age has been determined by one of the above methods, the particular building was categorized by building class and exterior wall type and reference was made to Appendix Table II. Subtraction of the resulting depreciation percentage from 100% gave the net depreciated condition.

An additional consideration in determining final depreciated condition was the degree of maintenance which the structure has had. This was judged by observation in terms of a four-value scale: Good, Normal, Fair or Poor

In estimating the physical condition of a building, the actual age of the building was taken into consideration. For example, a very old building must be in conspicuously poor condition relative to similar buildings of the same age to be classified as in "Poor" physical condition. For buildings in "Fair" physical condition, a special depreciation penalty of 5 percent was made. For buildings in "Poor" physical condition, a special depreciation deduction of 10 percent was made. "Good" and "Normal" ratings received no special deduction. This penalty was subtracted from the net depreciated condition mentioned above to achieve the final net depreciated condition.

The maximum depreciation due to effective age was limited to 70 percent where the building was in "Normal" condition; to a maximum of 80 percent when the economic value had diminished to the point where the building had a very limited use due to its condition - "Poor". Economic obsolescence may add as much as an additional 10 percent to a maximum of 90 percent where the economic value had diminished to the point where the building was no longer usable. The total accrued depreciation in excess of 70 percent applies where an abnormal physical or economic condition existed-- if such condition required special depreciation deductions-- or where there was economic obsolescence above the normal structural depreciation (to a maximum of 90 percent).

e. Obsolescence

In addition to physical depreciation, obsolescence must be considered before the final net depreciated value of a building can be determined.

Obsolescence, when applied to building valuation, is the loss over and above that caused by physical depreciation. It is a loss due to an excess of supply over demand or loss in desirability and utility for specific classes of properties. Such loss in desirability may be traced to one or more causes, such as improper location resulting in over- or under-improvement; changed neighborhood conditions, arising from changes in use, population, and residential and business shifts; or to lessened demand for certain classes of non-residential buildings caused by oversupply and/or economic conditions.

Uniform guides have been established whereby these factors were measured. The majority of obsolescence deductions were applied by building classes, building groups, or location areas. In individual cases, economic obsolescence may occur because of some condition peculiar to a particular property. In such cases the guides were modified depending upon the judgment of the appraiser.

- (1) Obsolescence resulting from location of houses and tenement or apartment buildings.

Location obsolescence of residential buildings was determined by an analysis of the characteristics and comparative property values in different areas. Determination of the extent of location obsolescence involved the following steps:

- (a) identifying specific valuation areas
- (b) analyzing their special characteristics and circumstances
- (c) appraising the extent of the influences of (b)
- (d) establishing the schedule of percentage obsolescence due to varying location conditions

Such valuation areas covering the entire city, and their appropriate obsolescence percentage deductions are outlined on the map included in the Appendix. The areas are not meant to represent social communities or neighborhoods, but only attempt to compensate for the effect different locations have on the relative values of similar types of residential structures.

Individual houses and tenement or apartment buildings located near dump yards and industrial plants or mills producing obnoxious odors, vapors, noise or dust, or located in low, swampy or flood locations, were given an additional location obsolescence deduction of from 5 to 20 percent.

- (2) Obsolescence caused by over-improvement of single and double family structures.

This situation arose where the excess cost of higher improvement over the normal or proper improvement was not justified by the location of the property. The ratio of the depreciated building value to the land

value afforded a measure of the amount of over-improvement. In properly developed neighborhoods, the ratio of the value of improvements to the land value (of a normal size lot) tends toward a common level for similar use properties. In newly subdivided or outlying sections of the city, any over-improvement was applied on individual cases and not by the guide listed in Appendix Table III.

- (3) Obsolescence caused by over-development of large mansion-type single family residential buildings.

This arises from lack of demand or market of such buildings due to high income taxes, shortage of domestic help, and inability to convert the structure to more economic use because of zoning restrictions, or structural design of the building. The extent of over-development may best be determined from the difference between market value and the depreciated replacement cost. It appears that the larger the building the greater the amount of this form of obsolescence. Appendix Table IV applied only to large mansion-type residential buildings which are used as single family residences, located in single-family zoned areas and not broken up into multi-family units or used for commercial purposes.

- (4) Obsolescence caused by under-improvement of individual house and tenement or apartment building.

This arises from shifts in commercial, industrial and residential uses causing residential buildings to be on lands zones and used for other uses having values substantially higher than average residential land values in the city. The extent of underimprovement may best be determined from the relationship between the value of the land and the land utilization. (See Appendix Table V.)

- (5) Economic obsolescence of multi-family apartment buildings of four stories or less.

Sales analysis in Newark indicated that older multi-family walk-up apartment buildings have a loss in value due to economic conditions. This is probably caused primarily because of former rent control and shifting population patterns in the city. Analysis of recent sales indicated that the amount of obsolescence varies by the number of units in the building. (See Appendix Table VI.)

- (6) Obsolescence caused by over-improvement of specific classes of income type buildings.

In ascertaining this percentage, the replacement cost of the building plus the value of the land was considered the upper limit of value. Where market data were found

which indicated a value less than replacement cost depreciated according to age and condition, such difference was considered as a factor in measuring obsolescence. An example of this income analysis procedure is given in Appendix Table VII.

(7) Economic or Functional Obsolescence for specific classes of income type buildings.

(a) Store buildings and mixed stores and apartments, offices, etc.

Income analysis and sales comparison indicated that buildings of this type, if they are three stories or over in height with no elevator service to the third story or above, have a loss in value. This is because the third story and above cannot be rented economically due to the lack of an elevator.

Appendix Table VIII contains a guide which was followed in establishing uniform obsolescence deductions based on the number of stories without elevator service.

(b) Theater buildings

Income analysis and sales comparisons indicated according to the survey, that theater buildings have a loss in value due to the influence of television and outdoor theaters. It was found that the latter had a marked effect on theater admission receipts.

Appendix Table IX contains a guide which was followed in establishing uniform deductions for this form of obsolescence.

(c) Factory or Mill Buildings

Sales analysis indicated that factory or mill type buildings have a loss in value due to economic or functional obsolescence. This is caused by an oversupply of vacant or semi-vacant multi-stories mill type buildings which are not readily adapted to modern industrial use.

As a general rule of thumb, multi-story industrial buildings in Newark will sell for approximately \$1.25 to \$2.00 per square foot of floor area, including the land.

The sales analysis also indicated that the amount of obsolescence increases with the number of stories in the mill type buildings and also varies with the class of building.

Appendix Table X contains a guide which was followed in establishing uniform allowances for ec-

onomic or functional obsolescence of non-fire-proof multi-story industrial buildings.

(d) Office buildings of more than four stories

Income analysis and sales comparison indicated that buildings in this category have a loss in value due to one or more of the following conditions:

Inadequate elevator facilities
Poor functional layout
Comparatively poor business location
Lack of modern office facilities which are available in other buildings
Poor transportation facilities
Inadequate parking

The effect of these functional and economic inadequacies is usually reflected in the average square foot rental. In a majority of the cases, the more desirable office space will command the highest square foot rental and conversely, the least desirable office space will command the lowest square foot rental.

Downtown office buildings above four stories were classified into five basic categories (from A to E) representing increasing amounts of functional or economic obsolescence from the above listed items.

The Class A Office Buildings are those buildings which are located in or near the center of the downtown business area; are functionally adequate; provide fast and efficient elevator service to all floors; contain modern office facilities for rental; and are generally considered to have a high-class tenancy.

The Office Buildings designated as Class B, C, D and E suffer economic and/or functional obsolescence from one or more of the above listed items and in the lower classes usually represent an over-improvement of the site.

Appendix Table XI contains a suggested guide which was followed in establishing uniform deductions for obsolescence due to the conditions listed above.

(e) Mixed stores and offices in downtown locations

Income analysis and sales comparison indicated that buildings in these classes, from three to eight stories in height, have a loss in value with or without an elevator due to the fact that some

of the upper floors are not economically rentable. These buildings are almost always located in the downtown high land value areas, and usually do not have more than 2,500 square feet of ground area.

This loss in value is due to a combination of functional and economic obsolescence. In almost every case the potential rent for the upper floors does not add to the net income of the building. In other cases the loss of rentable ground floor area is not equal to the return received by establishing access to the upper floors.

In order to establish the amount of economic and functional obsolescence applicable to these buildings, the appraiser first estimated the "effective" height of the subject building. This is found by ascertaining the number of floors that can be rented profitably. In most of these buildings the fourth floor are not profitably rentable. As the building become located farther from the central downtown area there is even limited use for the second and third floors.

Those buildings which are three stories or over in height, with no elevator service to the third story or above, received a preliminary obsolescence deduction in accordance with the guide previously described for these classes when located in any area throughout the city.

The guide in Table XII was suggested when establishing uniform allowances for economic or functional obsolescence based on the number of stories without elevators in buildings located in the downtown high land value areas. This guide was also used for buildings which have inadequate elevators, serving some or all of the upper floors. A freight elevator located in the rear of the building where no access corridor exists on the first floor added little value to the upper floors unless the upper floors could be used by the ground floor tenant.

Appendix Table XII represents the maximum obsolescence applicable to these buildings when located in downtown areas where land value is high.

f. Determination of Total Appraised Value - Summary

In each case where obsolescence was established, the obsolescence percentage was applied to the net depreciated building percentage. When these two percentages are multiplied together, and the resultant final net condition percentage is applied to the replacement cost of the building, the final appraised value of the building is obtained. The

building appraised value is then added to the land appraised value to determine the total appraised value.

Assume that an average grade building containing a one-family dwelling has a base replacement cost of \$16,000, an effective age of 40 years, an observed physical condition of "poor" and the land value is \$125 per front foot. Using line D IV (representing applicable wall type) on Appendix Table II, the depreciation for 40 years is 43 percent. To this an additional 10 percent depreciation is added for poor physical condition or a total depreciation of 53 percent. The net depreciated condition is 100 minus 53 or 47 percent. Applying the 47 percent to the replacement cost of \$16,000 results in a depreciated building value of \$7,520.

Due to the high per front foot value the land is not being utilized to its highest and best use and an under improvement obsolescence penalty must be included. By applying the depreciated building value (\$7,520) to Section A, Appendix Table V, the obsolescence factor is found to be 43 percent. The net condition of the building due to obsolescence is 100 minus 43 or 57 percent.

The final net condition of the building is determined by multiplying the depreciation net condition by the obsolescence net condition ($47 \times 57 = 30$ percent final net condition.) The principal building appraisal is then determined by multiplying the total replacement cost by the final net condition or $\$16,000 \times 30 \text{ percent} = \$4,800$. This figure, when added to the appraised land value, gives the total appraised value of the property.

3. Data Processing

Some 55,000 appraisal records were filled out as part of Newark's real property appraisal survey, using the procedure described in the preceding section of this chapter. These cards were grouped into about 2200 blocks, each placed in a separate folder. Three different "Property Record and Appraisal Cards" were used: residential, commercial and industrial, and tax exempt city-owned property. Each card is only a slight modification of the other. The tax exempt card usually contained no information other than address, block and lot number. All state and federal non-taxable properties were completely excluded from the survey, but are listed by block and lot number on city tax records.

After selection of such information on the appraisal cards that was found to be applicable to the needs of the Demonstration Grant Project, this information was punched into IBM cards by arrangement of the Newark Central Planning Board. Thus, each IBM card contains the selected information originating from a single original appraisal card, which in turn represents a single building or vacant lot in the City of Newark

The primary identifying characteristics of each card are the block and lot numbers and, where more than one building occurs on the same lot, separate numbers for each building. In addition to these identification numbers, the cards contained the following information except where noted:

- a. Lot Area--This was usually listed by one or more sets of dimensions. If more than one set of dimensions occurred on a lot (as on an irregularly shaped lot), each additional set of dimensions was listed on a supplementary IBM card together with the primary identification numbers. Each supplementary card is referred to as a trailer card. This system was devised solely to facilitate the punching operation. If the area of the lot was given in total square feet, as occurred occasionally, this was punched directly on to the card with an "x" overpunch in the last column of the field. The lot area information was punched only on the principal building card of a multi-building lot. If trailer cards were necessary, these were supplementary to the principal building card. On cards representing additional buildings, this field was left blank (punched with zeros).
- b. Building Class Number--Reference has already been made to this number in describing the appraisal process. Tax exempt properties were not given class numbers by the appraisers, hence numbers were devised later to cover these properties, which fit into the general classification framework used in the original survey. Vacant lots were listed as building number 00.00 or, if tax exempt, building number 02.01. A complete list of all such numbers used is included on Appendix Table XIII. It should be pointed out that these numbers refer to use of the building, and not necessarily the use of the land. With this in mind, and recognizing the original appraisal purpose of this classification, it can be seen that in some respects the classification system is not what might have been devised if a direct renewal planning usage had been the primary purpose.
- c. Building Class Letter--appears immediately following the building class number and refers to the type of exterior wall construction. This affects the base replacement cost and the depreciation rate as calculated from Appendix Table II. Not all building class numbers have a separate "letter identification", since the number sometimes includes only one wall type.
- d. Number of Stories--half story heights were rounded off to the next higher whole number.
- e. Construction (Physical) Age--the number of years from the time of construction to the present. This was usually secured from the person interviewed at the time of the appraisal. If no person was present, if the age was unknown, or if there was reason to suspect that the person

interviewed had given an erroneous age, the age was estimated or sometimes the effective age was modified to be more in keeping with what the appraiser thought was accurate. Occasionally, this age was secured from deeds or other existing records.

- f. Effective Age--The meaning of this term was explained in the preceding section. Normally, effective age should always be lower than construction age. Due to the inaccuracies sometimes found in the construction age, which were mentioned above, this was not always the case.
- g. Number of Dwelling Units--includes both vacant and occupied dwelling units.
- h. Number of Rooms--applies primarily when dwelling units are present.
- i. Plumbing Fixtures--No information was available on the condition or quality of plumbing fixtures. Information was available, however, on the number of plumbing fixtures in each structure. This has been grouped into the number of three-fixture units (sink, toilet and bath), two-fixture units (sink and toilet), and single-fixture units (sink or toilet) in each structure. An additional column has been added for an item on the residential card indicating "none" (no plumbing) or "water only".
- j. Heating--No information was available on the condition of heating equipment, but information was gathered on the type of heating equipment or lack thereof. A mark in the "none" (no heat) item on the commercial and industrial property record card received a "one" punch on the heating column of the IBM card. (This item is not included on the residential card). A mark after "stove" on the commercial and industrial card or "stove or unit heaters" on the residential card received a "two" punch. A mark on either card after any of the heating types which indicate central heating, received a "three" punch.

Occasionally, a structure will have central heating on the first floor and unit heaters on the upper floors. This shows up on the original records as a mark after both items, one mark usually being a two (2), meaning second floor. Such a condition gets a "four" punch on the heating column of the IBM card.

- k. Depreciation--Net Condition.
- l. Obsolescence--Net Condition.
- m. Final Net Condition--This and the preceding two items are expressed in percentage form (rounded off to the nearest whole

percent). The meanings of these items were explained in the previous section. Though final net condition is a composite of the first two items, Depreciation and Obsolescence were listed separately because of their distinct difference and because of the importance of these three percentages in later structure evaluation.

- n. Building Value--The final net depreciated value of the building (expressed to the nearest whole dollar). Where more than one building is present on the same lot, the combined value of all buildings on that lot is punched on the principal (or first) card for the lot. Cards for the remaining buildings have the individual values punched with an "x" overpunch on the last column of the field. "Values" include the assessed value of both the major buildings and any accessory buildings connected therewith. This method of expressing building values has some operational inadequacies, but was designed to facilitate key punching.
- o. Land Value--is expressed to the nearest whole dollar and is found only on the principal (or first) card for each lot should there be more than one building per lot. An "x" punch in the last column of this field indicates that the entire card refers to a building or lot which is tax exempt.
- p. Building Area--This indicates ground area of the building and is punched separately for each building. The ground area of accessory structures is not included in this figure.

Plate I indicates a schematic diagram of the resulting IBM punch card showing the general layout of data and the number of columns devoted to each field.

Note on Tax Exempt Properties: For city-owned tax exempt properties, all information available (from several other sources) was punched onto cards in the same manner as that described above. Normally, the information available included only the building classification number and lot area. In addition, the assessed value of the building and/or land was entered on the card. These assessments have different relative "values" from that determined through the appraisal survey. All tax exempt properties of this nature were punched with an identifying "x" overpunch in Column 61. No information was available on state-owned or taxed properties; hence they are excluded from this system.

After the cards were key punched, they were interpreted by machine and the numbers printed on two lines on the top of each card.

All key punching and interpretation was done by a commercial service bureau in about six weeks, at a cost of approximately \$5,000.

Key verification of the punch cards was undertaken on a 10 percent sample basis. It was felt that the use to which these cards were to be put did not warrant the large additional expenditure for 100 percent key verification. All cards were further manually verified, in part, by the staff of the Central Planning Board.

4. Calculations and Tabulation of Punch Card Data

Calculations and tabulation of the data were designed to achieve three major goals:

- a. A fast and reasonably accurate method of weighting various criteria of blight in such a way as to be able to assess the relative conditions of blight on a block-by-block basis throughout the city;
- b. A fast and reasonably accurate method of finding, on a block basis, other data which are relevant to urban renewal;
- c. A means of deriving city totals for such descriptive information as land uses, land and building values, dwelling units and structures.

For the first two purposes, the basic geographic unit was the block. This is because the tabulation data was organized in this fashion, and the unit has the flexibility to be combined into neighborhood, community, and city-wide groupings. The use of block fronts as a basic unit of evaluation, which holds many advantages for urban renewal study purposes, was found to be impractical for this part of the project, but reference is made to such system in the report of the Architectural Consultant.

In addition to the physical and environmental weighted penalty scoring systems, which will be explained later, the following calculations were derived from the punch card data:

- (1) Simple averages and percentages by block.
 - (a) Average number of stories
 - (b) Average construction age
 - (c) Average effective age
 - (d) Average depreciation net condition percentage
 - (i) for residential and mixed commercial-residential buildings
 - (ii) for commercial and industrial buildings
 - (e) Average obsolescence net condition percentage
 - (i) for residential and mixed commercial-residential buildings
 - (ii) for commercial and industrial buildings
 - (f) Average final net condition percentage
 - (i) for residential and mixed commercial-residential buildings
 - (ii) for commercial and industrial buildings
 - (g) Total building value
 - (i) for residential and mixed commercial-residential buildings

- (ii) for commercial and industrial buildings*
 - (h) Total square feet of building area
 - (i) Total land value
 - (j) Total square feet of land area
 - (k) Total number of dwelling units
 - (l) Percent of the various types of heating facilities found in residential and mixed commercial-residential buildings
 - (m) Percent of residential, store, and mixed residential-commercial buildings of below average construction grade (based on the last two digits of the building classification number)
 - (n) Percent and number of apartment, commercial and industrial buildings without fireproof construction
- (2) Cross tabulations and calculations by block.
- (a) Average difference between the construction age and the effective age (to determine relative differences between blocks in regard to alterations and modernization)
 - (b) Average number of rooms per dwelling unit
 - (c) Average number of dwelling units per residential and mixed residential-commercial structure
 - (d) Average number of dwelling units per acre of land containing dwelling units (dwelling unit density)
 - (e) Average building value per square foot of building area
 - (f) Average land value per square foot of land area
 - (g) Percent of total block area covered by buildings (building density)
 - (h) Percent of land area devoted to major building classification types
 - (i) residential
 - (ii) commercial
 - (iii) public and semi-public
 - (iv) industrial
 - (v) improved open space (and agricultural)
 - (vi) vacant
 - (i) Percent of structures in major building classification types
 - (i) residential
 - (ii) commercial
 - (iii) public and semi-public
 - (iv) industrial
 - (v) improved open space (and agricultural)
 - (vi) vacant

* (Note: Items "d", "e", "f" and "g" were each broken into two separate categories because it was found that there was a substantial difference between the percentages of these groups and this data was needed for later calculations.)

- (j) Percent and number of total residential structures by wall construction type
 - (i) frame
 - (ii) masonry

(3) Cross tabulations by city totals

The following items were tabulated for the entire city by building classification categories.

- (a) land area
- (b) land value
- (c) building value
- (d) dwelling units
- (e) structures

All calculations and tabulations were performed by a commercial service bureau at the cost of about \$3,000. Due to the magnitude and complexity of the calculations, it was found advisable to do the work as one operation on an IBM 650 magnetic drum computer. Programming of the computer was performed by the service bureau in consultation with the staff of the Central Planning Board.

The computer first combined the block data into three summary output cards per block. City totals were combined into a set of cards each of which represented a building classification category (Table II-1). These output cards were then interpreted and final reports were printed from them. The cards were placed on file at the Central Planning Board and may be used for further studies.

No attempt was made to prepare a separate printed listing of the individual lot and building information from the main set of punch cards. It was felt that the printed interpretation on the top of each card would suffice when such specific information is desired.

A note on error involved in this data.

It must be emphasized that the data used is not without recognizable error. Errors occurred during two principal steps in the procedure. First, there is reason to believe that a certain amount of error was contained in the Appraisal Survey. Many inaccuracies have been uncovered by the Division of Assessment, Department of Finance, for which the appraisal was undertaken, and additional errors were identified by the Planning Staff in various checks made while assembling the data for automatic processing. It is difficult to establish the exact magnitude of inaccuracy without undertaking a thorough and systematic study, which was not possible prior to the First Interim Report. The difficulty is even greater because of the lack of directly comparable data against which checks can be made.

Second, errors were contributed during the key punching process. Complete verification of all key punching was not undertaken due to the high cost involved. The punching was key verified, however, on a 10 percent sample basis, and the amount of error uncovered was not of a significance that would detract from the statistical reliability of the remainder.

The block and lot number identifications were fully verified by hand, and additional errors on the remainder of the card were corrected. The cards were then machine checked as to double punching, missing punches, incorrect high and extra punches, and for block sequence purposes. All possible known corrections were made before the calculation work proceeded. Other mispunched cards were rejected by the computer during the calculation process.

The city totals of two major elements of the data have been checked against known figures: (a) The appraisal survey showed about 130,000 dwelling units in the city as of 1957. The U. S. Census of Housing showed about 124,000 dwelling units in the city for 1950. There is no reason to suppose that there has been such a large increase in dwelling units during the seven year period. (b) The appraisal survey showed a total city area of approximately 27 square miles, based on adding up all the areas of individual lots and pro-rating streets, railroad property, and water area. The Master Plan, prepared by Harland Bartholomew in 1947, showed 25.7 square miles. (The difference between individual land use categories was sometimes relatively much larger, but it is not certain whether corresponding categories included all the same component items.)

If the average error found in these two measurements remains true for the entire study, it may be identified as approximately 5 percent. A 5 percent error is by no means unworkable from the statistical point of view, and is probably found in most large-scale aggregates of urban planning data.

Although further assessment and correction of error will be made as soon as practicable, caution will be used in interpreting the data, particularly for smaller units, such as sub-neighborhoods and blocks. Much of the present analysis deals in averages and percentages, thus partially alleviating the error problem. Any absolute figures used for public presentation will be checked against other available data.

TABLE II-1

BUILDING AND LAND CLASSIFICATION CATEGORIES
(for breakdown of city totals)

Vacant

00.00- vacant-private

02.01- vacant-public

Residential

10.00-10.09 one family

10.10- mansions

11.00-11.03 semi-detached

12.00-12.03 attached

13.00-13.04 2-6 family

14.00-14.03 multi-family

14.04-14.06 elevator apartment

15.00-15.03 tourist courts

16.00-16.03 accessory garages

17.01- public housing

Commercial

20.00-21.02 stores

24.01-24.05 hotels

25.01-25.04 office buildings

26.01-26.04 bank buildings

27.01-27.07 theaters

28.01-28.03 gas stations

29.01-29.04 commercial garages

Mixed

22.01-22.05 (with dwelling units) Mixed residential-commercial

22.01-22.05 (without dwelling units) Mixed other

Public & Semi-Public

30.01-30.02	clubs & lodges
30.03-	country clubs
30.04-	stadiums
31.02-	hospitals-private
31.03-	hospitals-public
32.01-	charitable institutions
33.01-	religious institutions
34.01-	governmental institutions
36.01-	schools-public
36.02-	schools-private

Industrial

40.00-40.03	warehouses
41.01-42.01	light industrial
42.02-43.01	heavy industrial
44.01-	industrial-single purpose
45.01-	greenhouses
47.01-	piers, wharves, piling, etc.

Agricultural

51.02-51.03	agricultural
-------------	--------------

Improved open space

60.01-	parks
62.01-	cemetaries

Note: Building classification letter is deleted in this breakdown.

PLATE I
PUNCH CARD DESIGN

BLOCK NUMBER		1 2 3 4	
BLOCK LETTER		5	
LOT NUMBER		6 7 8	
BUILDING NUMBER		9 10	X PUNCH (SECONDARY BLOCK IDENTIFICATION CARD 9 COLUMN FIELD)
LOT		11 12 13 14	
AREA		15 16 17 18	X PUNCH (TOTAL SQ.FT. COLS. 11-18)
BUILDING CLASS NUMBER		19 20 21 22	X PUNCH (DIMENSION TRAILER CARD) 19 COLUMN FIELD
BUILDING CLASS LETTER		23	
NUMBER OF STORIES		24 25	
CONSTRUCTION AGE		26 27 28	
EFFECTIVE AGE		29 30 31	
NUMBER OF DWELLING UNITS		32 33 34	
NUMBER OF ROOMS		35 36 37 38	
PLUMBING	NONE - WATER ONLY	39	
	NUMBER OF 3 FIXTURES	40 41 42	
	2 FIXTURES	43 44	
	1 FIXTURE	45 46	
	HEATING	47	
DEPRECIATION		48 49	
OBSCOLESCENCE		50 51	
FINAL NET CONDITION		52 53	
BUILDING VALUE		54 55 56 57 58 59 60 61	
LAND VALUE		62 63 64 65 66 67 68 69	X PUNCH (NON-ADD TOTAL BLDG VALUE INCLUDED ON 1ST BLDG CARD)
BUILDING AREA		70 71 72 73 74 75	X PUNCH TAX EXEMPT PROPERTY
		76 77 78 79 80	

B. POPULATION

1. General Trends

An important demographic trend of the postwar period in urban areas throughout the nation has been the exodus of the predominantly middle-income, white population from the central city to the suburbs, and its replacement by predominantly lower-income minority groups. This movement is known to have caused innumerable problems in housing, transportation, educational and recreational facilities, municipal budgeting, etc. This is despite the fact that, for the most part, the total population numbers of these urban areas have changed only slightly.

The population trends of Newark fit this general pattern. The total population in Newark at the time of the 1950 Census was 438,776. Of this total, 417,172 persons lived in households. A recent survey prepared for the Mayor's Commission on Group Relations*, which interviewed a stratified sample of about four percent of Newark's households, found the total household population to be 411,288, or a decrease of one percent in relation to 1950. At the same time, however, white household population decreased 27 percent since 1950, while non-white (mostly Negro) household population increased by 109 percent. (See Table II-2)

TABLE II-2
HOUSEHOLD POPULATION, CITY OF NEWARK
1950 and 1958

	1950 Census	1958 Survey	Percent Change From 1950
Total Household Population	417,172	411,288	-1%
White	348,856	255,797	-27%
Non-white	68,316	142,625	+109%
Negro		141,914	
Other		711	
Puerto Rican		12,866	

Source: Market Planning Corporation study for the Newark Mayor's Commission on Group Relations

Within the city Negroes are no longer concentrated only in the central part of the city, but have moved into the neighborhoods surrounding the central area. Most of the movement is toward the southwestern part of the city

The proportion of the Negro population that now lives in the Clinton Hill** and West Side** portions of the city has increased significantly since 1950. Whereas only four percent of Newark's Negro population lived in Clinton Hill in 1950, it is estimated that 12 percent live in this community at present. The West Side contained eight percent of the total city Negro population in 1950; this area now contains an estimated 20 percent of the total Negro population. The other area in which a sharp racial change has taken place is the Central Business District. This area was composed of 65 percent whites and 35 percent Negroes in 1950; as compared with a present white population of 21 percent and a Negro population

* Newark: A City in Transition, prepared for the City of Newark, New Jersey, Mayor's Commission on Group Relations, by the Market Planning Corporation. Newark: January, 1959. 2 vols. published to date.

** For community delineation see Chapter V.

of 40 percent, while a third of the district is comprised of Puerto Ricans.

The large concentration of Puerto Ricans in the Central Business District follows the typical pattern of new immigrant entry into the community. The situation is similar to developments in New York and several other major cities. Although Puerto Ricans as American citizens do not officially fall into the immigrant category, this group does have characteristic attributes of immigration, insofar as the language, cultural heritage and low socio-economic level are concerned.

2. Age Distribution

Comparing age distribution of the population for 1950 and the survey undertaken for the Mayor's Commission on Group Relations in 1958, an increasing proportion of the total is found in the group under 10 years of age. This increase from 17 percent in 1950 to 22 percent in 1958, is generally consistent with the baby boom experienced throughout the country.

The accompanying table shows the distribution of the population by age and race. Interestingly, it is mostly the Negro population which accounts for the higher concentration in the youngest age group.

TABLE II - 3
DISTRIBUTION OF POPULATION BY RACE AND AGE, CITY OF NEWARK
1950 AND 1958

Age	All Races*		White		Non-White	Negro	Puerto Rican**
	1950 Census	1958 Survey	1950 Census	1958 Survey	1950 Census	1958 Survey	1958 Survey
Under 10	16.9%	22.0%	16%	18%	20%	28%	34%
10-19	12.5%	13.9%	12%	13%	14%	15%	17%
20-29	17.1%	13.2%	17%	12%	19%	15%	19%
30-39	17.1%	15.9%	17%	15%	19%	17%	14%
40-49	13.9%	13.1%	14%	15%	15%	11%	6%
50-59	11.3%	9.5%	12%	11%	8%	7%	3%
60 and over	11.2%	10.4%	12%	14%	5%	5%	3%
No answer	-	2.0%	-	2%	-	2%	4%
Total	100.0%	100.0%	100%	100%	100%	100%	100%
Base	415,990	21,994	347,880	13,679	68,110	7,589	688

* Census of Housing estimates of the Newark population by age and race in 1950 are based on a 20 percent sample of the total city population. When this sample is projected to the total population there are 415,990 persons living in households.

** No 1950 census data are given for Puerto Ricans separately.

Source: Market Planning Corporation study for the Newark Mayor's Commission on Group Relations

3. Income

The estimated median annual income for all Newark households was found to be \$4,375, or a thousand-dollar increase over that of 1949. The median income of the white population is over a thousand dollars higher than that of the Negro population.

4. Home Ownership

Over one fourth of the households in Newark own their own homes. This proportion is higher for whites (30 percent) than for Negroes (16%). The great majority of the people in Newark rent their homes (73 percent).

TABLE II-4
INCOME OF HOUSEHOLDS, CITY OF NEWARK, BY RACE
1950 AND 1958

<u>Income Group</u>	<u>Total</u>		<u>White</u>	<u>Negro</u>	<u>Puerto Rican</u>
	<u>1950 Census (1949 Income)</u>	<u>1958 Survey</u>			
<u>Under \$4,000</u>	<u>60.1%</u>	<u>38.8%</u>	<u>32%</u>	<u>55%</u>	<u>67%</u>
Less than \$1,000	8.5	1.8	2	2	-
\$1,000 - \$2,499	19.7	11.0	9	17	19
\$2,500 - \$3,999	31.9	26.0	21	36	48
<u>Over \$4,000</u>	<u>32.2%</u>	<u>54.4%</u>	<u>61%</u>	<u>39%</u>	<u>29%</u>
\$4,000 - \$5,999	20.7	36.1	40	27	22
\$6,000 - \$9,999	9.3	14.6	17	9	5
\$10,000 and over	2.2	3.7	4	3	2
<u>Not reported</u>	<u>7.7%</u>	<u>6.8%</u>	<u>7%</u>	<u>6%</u>	<u>4%</u>
Total	100.0%	100.0%	100%	100%	100%
Base	(115,290)	(6,453)	(4,254)	(2,042)	(141)
Median Income	\$3,288	\$4,375	\$4,737	\$3,702	\$3,417

Source: Market Planning Corporation study for the Newark Mayor's Commission on Group Relations

5. Population Problems in Urban Renewal

Newark has the third highest net population density among American cities. This fact alone contributes to many special problems of adequate shelter, open spaces, recreational land uses, traffic, and other.

* Another interesting comparison is that between the city of Newark and the total area of the state of New Jersey. In 1950, the state had a gross population density of 643 persons per square mile. The city had a gross density of 18,600 persons per square mile.

The recent population mobility described above has intensified these problems. Its major political, social and economic implications are directly related to the city's renewal effort and require careful further study.

One example of the situation is the "plans to move" disclosed in the Commission on Group Relations' study. As part of a field survey, both white and Negro respondents were asked whether they intend to move within the next year and if so, to what area they planned to move. Of the whites who plan to change address, more than half (55 percent) said that they will leave Newark proper -- either by moving to the suburbs or away from the Newark area entirely. Among the comparable group of Negroes nearly two-thirds (65 percent) intended to stay within Newark's boundaries, either near their present location (21 percent) or in another Newark neighborhood.

Area to which white and Negro heads of household
said they intend to move*

<u>Plan to move:</u>	<u>White</u>	<u>Negroes</u>
Near present location	8%	21%
To other Newark neighborhood	18%	44%
To the suburbs	28%	8%
Away from the area	27%	11%
No answer	19%	16%
Total	100%	100%
Base	(868)	(509)

* Asked only of those respondents who said they plan to move within the next year.

Community and neighborhood boundaries, together with their public life, organizational systems, leadership, and even physical features, are subject to change due to the population movement. Traditional pressures against minority groups are increasing in scope, and the vicious circle of socio-economic problems combined with physical and structural deterioration is actually in operation. One of the obvious and most direct renewal problems is the housing blight in places of settlement of the minority groups. This and other related phenomena will be the subject of further investigation.

C. THOROUGHFARES AND TRANSPORTATION

1. Review of the Transport Renewal Problem

One of the most difficult and complex renewal problems facing Newark as well as other urban areas is transportation. In particular, unless decisive action is taken soon, the unprecedented use of automobiles and trucks will seriously threaten the economic and social health of the city through the constantly rising tide of traffic congestion, delay, confusion and accidents on streets and highways.

According to studies of the Brookings Institute, Newark is the most commuted-to major city in the United States. Newark leads the nation in commuting increment, as its daytime population increases 102 percent over its nighttime population. The next city on this national commuted-to list, Pittsburgh registers a 49 percent population increase.

More than 5,920 round trips are made by buses to the core of the Central Business District daily.

Each day 42,000 vehicles utilize the two Newark interchanges on the New Jersey Turnpike.

Over 79,000 private automobiles pass through the Garden State Parkway daily at its points of intersection with the city boundary.

A recent Fortune Magazine study indicated that Newark is one of the first three cities in the country where commuters using rail transportation can move greater distances during peak rush hours in less time than those using rubber-tired transportation.

The magnitude of the problem, therefore, is self-evident.

In addition, the portion of the National System of Interstate and Defense Highways already proposed for Newark will produce a formidable impact upon the city's future renewal program. Due to this, as already stated by the Urban Renewal Administration, effective coordination and collaboration is imperative in the conduct of the renewal and highway programs if the public and the affected communities are to derive the maximum benefits. The location of proposed freeways or expressways may permanently define communities and neighborhoods. Such planned impact must be coordinated very closely with renewal decisions since it is extremely essential to space and locate freeways in such a way as to disrupt stable areas as little as possible and divide other sections on a functional basis, in addition to fulfilling the objective of removing heavy through traffic from city streets.

This project will therefore attempt to direct the Newark renewal program to offer as full as possible service to the highway program.

It must be pointed out that sections of the city with the greatest need for rebuilding or rehabilitation may not coincide

directly with the otherwise most desirable highway locations, and, therefore, renewal cannot in itself become merely a tool of the highway program. Experience has demonstrated that piecemeal efforts are not the answer. All the basic elements of the transportation problem must be brought into focus and handled in an organized manner.

For this reason, the project must survey and analyze the entire transportation situation as it exists in the city today, and subsequently coordinate the selection of renewal areas with proposed federal interstate highways, in order to derive maximum benefits from both programs.

2. General Survey of Facilities

One of the chief assets Newark has is its favorable position as a major transport hub in eastern United States as well as in the New York-Connecticut-Northeastern-New Jersey Metropolitan Region.* The city is in the heart of the world's largest consumer and industrial markets, and is served by two principal thoroughfares, five railroads, a modern metropolitan airport, a rapidly expanding seaport, the world's largest truck terminal, and a vast bus network. Proposed interstate freeways will serve and circle the city's central business district, and will unite Newark with its own hinterland as well as New York City.

a. Existing Arterial Routes and Principal Street System

The principal arterial routes which serve Newark are the New Jersey Turnpike on the east and the Garden State Parkway on the west. Both are limited-access expressways and each carries traffic in a general north-south direction.

The Turnpike enters the city between Newark Airport and Port Newark. It passes through the Meadowlands Port and Industrial District, crosses the Passaic River and continues to highway connections leading to the Lincoln Tunnel and Holland Tunnel, while the main line leads to U.S. Route 46 and connects to George Washington Bridge.

The Garden State Parkway crosses the city through the residential community of Vailsburg, along the old Oraton Parkway. The length of Parkway through Newark is only approximately three-quarters of a mile. The Parkway at its northern terminus connects with the New York State Thruway, at Clifton with New Jersey Route 3 (leading to Lincoln Tunnel) and at Woodbridge with the New Jersey Turnpike.

Supplementing and connecting into these principal thoroughfares in Newark are U.S. Routes 1, 22, 21 (McCarter Highway), 58 and other secondary highways which are alternate federal

*By rail, Manhattan is 15 minutes from Downtown Newark. Many suburban locations are only 8-15 minutes railtime from Downtown.

and state routes and county roads. Raymond Boulevard is a main thoroughfare which begins at Lock Street just west of the Downtown district and passes through the business hub eastward to U.S. Route 1 and the New Jersey Turnpike. A west-bound ramp from the Pulaski Skyway connects with Raymond Boulevard. The Pulaski Skyway offers easy access to New York City by connecting with arteries leading to the Holland and Lincoln Tunnels. Only Route 21 provides a direct access to the southern portion of the Central Business District without entry upon secondary or local streets.

The city's principal, secondary and local street system is generally outmoded and inefficient since it was not designed and built for today's traffic needs. The system is based generally on the gridiron pattern as used in many American urban areas, although even this pattern is not sufficiently regular and consistent to offer such advantages as a good gridiron system may otherwise provide. The layout of the different communities, neighborhoods and functional areas follows different localized schemes, the origin of which is sometimes obscure and which in numerous instances produced improper connections. Some streets break out of the rectangular system altogether and follow what appears to have been formerly old country roads, Indian trails, cowpaths, etc.

However, certain advantages in the principal and secondary street pattern do exist. Both Broad and Market Streets, which are Newark's principal business thoroughfares, have wide roadways and sidewalks and are able to carry efficiently the heavy traffic which continuously traverses them. Broad Street, through a section of McCarter Highway, connects directly with Newark Airport and Port Newark, and also with the Turnpike and Pulaski Skyway leading within 30 minutes to downtown New York City.

A radial set of secondary streets provides relatively speedy access from the surrounding communities, through Newark's residential sections, to the Central Business District (Downtown). This system, although not geometrically and functionally ideal, resembles the radial principal street layout of Washington, D. C. and Detroit, and consists primarily of the following streets: Bloomfield Avenue (from Bloomfield and Montclair), Main Street-Orange Street and Central Avenue (from the Oranges), West Market Street (from East Orange), South Orange Avenue (from South Orange), Springfield Avenue (from Springfield and Irvington), and Clinton Avenue (from Irvington). These streets are predominantly county roads.

b. Proposed Thoroughfares

The chief deficiency of the State highway system in Newark and vicinity is the lack of routes providing a direct express service to the urbanized areas and the lack of a through-traffic by-pass system which would relieve the Central

Business District congestion.

For this reason an Inner Loop System has been conceived to permit through traffic to circumvent the Central Business District, and in this manner to help relieve the congested streets in Downtown. At the time of writing this report, two important elements of the Loop are approaching the final design stage through negotiations between the City, the State, and the Federal Bureau of Public Roads. The northern portion of the Loop is the proposed East-West Freeway, which will connect with the existing State Route 58 (the Stickel Bridge approach) and extend to West Orange. The Newark section of the proposed Freeway has been under intensive study due to the fact that the proposed alignment would pass through the stable residential Roseville community and if elevated, as proposed, would be a serious deterrent to the area's future renewal. Also, further consideration should be given to the location of exit and entrance interchanges which would allow traffic to enter and leave the Downtown business area instead of bypassing it entirely.

Although the alignment of the western section of the Inner Loop, the Midtown (North-South) Distributor, is generally established, the question of elevated or depressed construction is still under consideration. This Distributor highway will connect the East-West Freeway, through a route a few blocks west of High Street, with the proposed Southern Freeway.

The Southern Freeway, closing the Loop on its southern end, is planned as the realignment through Newark of state Route 22 (the new Federal-Aid Interstate Route 78). The route as proposed by state highway authorities would cut through the fringe of the stable residential Weequahic community. It would follow roughly between Nye and Bragaw Avenues, then between Watson and Hawthorne Avenues, across Elizabeth and Frelinghuysen Avenues to Newark Airport and an interchange with Route 1 and the New Jersey Turnpike. The highway through Newark would vary in width from eight to ten lanes. The city administration has suggested a different route, more to the north, which would spare Weequahic and at the same time contribute to the clearance of deteriorated central sections of Newark, and give better access to Downtown.

The city proposed route, actually enabling the creation of an efficient circle around Downtown, would begin at the Irvington-Hillside line and be elevated over the bed of the Lehigh Valley Railroad in Irvington. It would follow to Clinton Avenue and then run in Newark along a line between South 18th and 19th Streets, to a point just south of Springfield Avenue. The road would then bend east and follow Springfield and Waverly Avenues, spanning Broad Street, to Avenue C and across Pennsylvania Railroad tracks to the Route 1-Turnpike interchange.

The eastern leg of the Inner Loop will be state Route 21. As of the time of writing this report, the state has no definite reconstruction plans for the Downtown section of this facility, but certain improvements are being planned for sections in North Newark.

The feasibility of an additional connector from state Route 1 utilizing the old Morris Canal bed and an improved Raymond Boulevard, is under study. This connector was recommended by the City's Master Plan of 1947.

c. Existing Railroads

Five great trunk line railroads serve Newark with excellent freight and passenger facilities--the Pennsylvania, Erie, Lackawanna, Lehigh Valley, and Jersey Central. The Baltimore & Ohio has its freight terminus at Elizabethport close by. Newark has a total of 30 freight yards, with 750 tracks and a car capacity of 19,500.

Passenger service is furnished by the roads mentioned above, but in addition there is service over the Pennsylvania tracks by the Southern, Seaboard, Atlantic Coast Line, Louisville and Nashville and Chesapeake and Ohio to points South and the New Haven into New England.

All told, 1137 passenger trains arrive or depart from Newark each day. They carry annually about 15,500,000 passengers, of whom some 66 percent or 10,200,000 are commuters.

The main line of the Pennsylvania Railroad crosses the city in a north-south direction. One branch devoted exclusively to passenger traffic, runs parallel to Frelinghuysen Avenue and along McGarter Highway to Pennsylvania Station, between Market Street and Raymond Boulevard, and leaves the city over the Passaic River just north of the Station. Another is the Passaic Branch which carries freight along the eastern edge of the Ironbound community to the Pennsylvania Terminal in Jersey City. Still another branch of the Pennsylvania serves the industrial area in the Clinton Hill community, between Spruce Street and Peddie Street, terminating at the 18th Avenue Station. Additional connections are made to industries in the Meadows, including Port Newark.

The main line of the Lackawanna passes through Newark from east to west. From its entrance to the city from the east, between North Newark and Downtown, the line is elevated to a point near Boyden Street where it becomes depressed, and continues beyond the westerly city limits where it again becomes elevated. The Lackawanna is mainly a commuting service for Northern New Jersey and forms an important part of the transportation network joining Newark to all parts of the region.

The Lehigh Valley main line enters the city from the southwest, and passes through Weequahic Park to a junction with the Pennsylvania, from which point passenger trains operate over the latter's line to Pennsylvania Station. Lehigh Valley freight trains pass through the Oak Island Yard in the Meadow District, and cross Newark Bay over a bridge jointly used with the Pennsylvania Railroad. The main freight terminals of the Lehigh Valley are the Parkview Yards at Peddie Street, the Poinier Street Yard and the Oak Island Yard.

The three branch lines of the Erie Railroad serving Newark are important commuting roads, particularly for the area north of Newark, but its patronage and passenger terminal facilities in Newark are relatively limited. The Newark Branch enters the city over the Passaic River, near Fourth Avenue, and proceeds northward parallel to the River. The Greenwood Lake Branch and the Orange Branch of the Erie enter the city over the Passaic River near the northern city boundary, and divide at a point near Highland Avenue; the Greenwood Lake Branch, proceeding northward and the Orange Branch westward.

The Central Railroad of New Jersey has a passenger terminal on Broad Street between Edison Place and Lafayette Street. Trains enter the city both from the south and the east. Trains from the south operate over the Newark and Elizabeth Branch, while trains from the east use the Newark Branch. The Newark and Elizabeth Branch enters the city from the south passing between the Airport and the seaport, and joins the Newark Branch in the Meadows at a point north of Wilson Avenue. The Central also connects with Port Newark and has several industrial spurs serving manufacturing establishments in the eastern part of the city. The Broad Street Station was formerly intensively used by Newark-New York commuters, but in recent years this type of traffic has decreased because of the growth of bus travel and out-moded service offered by this railroad.

Another commuter service, which runs from Newark's Pennsylvania Station to Hoboken, Jersey City and New York City is the Hudson and Manhattan Tubes. This equivalent of a rapid transit line also serves many passengers who come to Pennsylvania Station via other railroads or bus lines.

d. Newark Airport

Newark Airport is a 2,200 acre site straddling Essex and Union Counties on the west side of the New Jersey Turnpike, about one mile west of Newark Bay. The airport, located ten minutes from downtown Newark and twenty minutes from the heart of Manhattan, is convenient to most air travelers in the bi-state metropolitan area. Twelve airlines offer direct passenger and cargo service to over 100 cities

throughout the United States. Helicopter service connects Newark with other airports operated by the Port of New York Authority and with midtown Manhattan.

In addition to its significance as a transportation facility, Newark Airport is also an important local industry by providing employment for about 4,000 people. Since 1948 the airport has been operated by the Port of New York Authority, as recommended by the Master Plan of 1947. Under the terms of a 50-year lease with the City of Newark the authority is obligated to undertake a major expansion and reconstruction program which would enable Newark Airport to regain and retain its position of one of the nation's principal air terminals.

During 1958 the airport served a record 2,531,000 passengers, which amounted to a 1 percent increase over 1957. Moreover, this service constituted 22 percent of the entire districts total air passenger traffic.

Air cargo activity at Newark Airport declined 8.7 percent to 82,376,000 pounds while air mail shipments, unaffected by the decline in national business, increased 15.2 percent to 15,266,000 pounds. The airport handled 131,000 take-offs and landings in 1958, a 3.3 percent decline from 1957.

A major construction project was completed at Newark Airport during 1958 and two others were commenced. The \$3,000,000 hangar built for United Air Lines began operation in March, while work on a \$1,750,000 control tower and a \$4,000,000 air cargo center was started in July.

e. Port Newark

Port Newark is centrally located within the region containing the world's greatest concentration of commerce and industry. Three railroads directly serve Port Newark: the Pennsylvania Lehigh Valley and Central Railroad of New Jersey. It is located immediately adjacent to some of the finest industrial highways in the country (discussed before) and has good access to the New York Thruway and other main arterial thoroughfares of the East. It is immediately adjacent to Newark Airport and is in the proximity of the commercial Teterboro Airport.

Port Newark is being developed and operated by the Port of New York Authority, under a 50-year lease agreement with the City of Newark. The facilities of the Port include 13 cargo terminals, 2 lumber storage buildings, a fumigation building, a new service building, a distribution building, bulk wine terminal, 6 public warehouse buildings and 28 deep water berths. At present a second channel is under construction. This new channel will be almost a mile long and when completed will provide new deep-sea wharves, distribution buildings, rail truckage and utilities, which will approximately double the size of the present facilities. Almost 635 additional acres of marshland will thus be put to commercial use.

Activities at the Port continue to grow at an accelerated pace, to the extent that in 1958 the total tonnage handled was 3,367,600 or 30.9 percent higher than in 1957.

General cargo tonnages, which include packaged freight, container cargo, scrap metal and lumber, increased 41.1 percent in 1958 over the amount handled in 1957.

Payrolls and employment at Port Newark reached new heights with \$19,488,000 earned by 4,309 workers during 1958, compared to \$14,887,000 being earned by 3,690 workers in 1957.

f. Bus and Subway System

The future of the Newark Central Business District will depend to a large measure upon improvements to the transit system which will make its services more accessible to large numbers of persons and will help relieve the present congestion on downtown streets.

The major portion of Newark's metropolitan transit lines, which form a comprehensive network throughout the metropolitan area with Newark as the center, are operated by Public Service Coordinated Transport. The bus system serves passengers desiring to move in any direction. Fifty-five routes connect to and through Newark and its neighboring communities, offering frequent service almost all day and night. A convenient express bus service is also offered between Newark and New York City, averaging about one-half hour to New York's Port Authority Bus Terminal.

Newark has relatively few feeder lines. One of the main feeder routes is the bus which travels from West Orange through East Orange via Park Avenue. The terminus in Newark is at Park Avenue and Fourth Street. Passengers then transfer to the City Subway or other local transportation.

There are a total of 5,859 daily bus trips in Newark, consisting of 5,017 trips passing through, originating or terminating in the city, and 842 daily trips (on eight lines) which originate and terminate within the city's boundaries. These bus trips, on an average day in March, 1959, brought 145,540 persons to, and transported 144,120 persons out of, the Downtown district.

The City Subway, a trolley system underground and in an open cut, supplements the bus system by offering rapid movement of passengers from North Newark via the old Morris Canal bed to Downtown, terminating at Pennsylvania Station. The Subway system is a relatively fast transportation line. Two hundred eighty-five round trips are made daily, carrying about 8,700 persons each way. During rush hours cars run every few minutes, carrying passengers from Pennsylvania Station to the northern city limits in 14 minutes. Transfer tickets allow passengers to transfer from the subway to almost any main bus route that connects with the subway line.

g. Off-Street Parking

In order to intensify the use of the subway and help relieve the Downtown district of passenger automobile traffic, the Central Planning Board and its staff are at present studying the possibility of parking lots to be located along the City Subway line.

At the writing of this report the Newark Parking Authority has embarked on a large parking program for the Central Business District and neighborhood shopping areas. Three Downtown parking facilities are under construction or are being planned. When completed the total number of off-street parking spaces in the Central Business District will approximately 30,000. Soon to be constructed is the underground parking garage occupying 3.3 acres at Military Park. This three-level garage will hold 1000 automobiles.

D. COMMUNITY FACILITIES: SCHOOLS

1. Existing Facilities

In the last few years Newark has become aware that its schools, like much of its housing, have not kept pace with the times. Recent studies by the Board of Education, the Central Planning Board, and outside consultants, have led to a preliminary evaluation of the existing school system and a program for the future.

a. School Organization

Newark has nearly completed a reorganization of its school system which, it is hoped will be better able to meet the needs of modern education. From a system of kindergarten to eight-grade elementary schools and four-grade high schools, the educational framework is being modified to kindergarten to six-grade elementary schools, three-grade junior high schools and three-grade senior high schools.

It is hoped that the addition of junior high schools will make the educational process easier for teachers and the transition from childhood to adolescence easier for pupils. It is expected that pupils of the same age groups and educational needs will be given more adequate attention. By drawing off the two upper grades of elementary school and the lower grade of senior high school, overcrowding in the older establishments will be relieved.

b. Public Schools

The present public school system consists of forty-nine elementary schools, nine junior high schools, and seven senior high schools. There are also ten special schools for mentally or physically handicapped children. The enrollments in each of the school categories are as follows:

Elementary	43,000
Junior High Schools	7,000
Senior High Schools	10,000
Special Schools	2,500
Total	<u>62,500</u>

c. Parochial Schools

An extensive group of Roman Catholic schools is maintained by the Archdiocese of Newark. These include schools of all categories, from a regional high school drawing upon students throughout the metropolitan area to local parish schools. The schools are located in all parts of Newark and provide education to a sizeable number of children.

The total number of Roman Catholic high school students is 2,365, and the elementary schools account for 10,600 students. Together these amount to 17 percent of the total school enrollment in the city. The Archdiocese has no plans at present for plant expansion. There are

Non-Roman Catholic private schools within the city, but they comprise only a small part of the overall educational facilities.

2. Location Problems-Schools and Community Areas

One of the most important problems in school planning is (a) meeting the present and foreseeable enrollment needs; and (b) the location of educational facilities so that they have a maximum of accessibility and can at the same time serve as focal points for local activities in the neighborhood. The Board of Education intends, in the future, to arrange school districts in such a way that junior high districts will be comprised of several complete elementary school districts and these, in turn, will be used as a basis for senior high districts. Wherever possible, schools should be located directly in relation to existing community boundaries and the existing street layout.

In this section Newark's existing school facilities are compared with the existing community boundaries which are described in Chapter V.

a. Elementary Schools

The distribution of elementary schools is satisfactory. Most elementary schools are located within one-half miles of the pupils' homes. All the communities presently contain at least one elementary school and the largest, Ironbound, contains six elementary schools, not counting special establishments. There are several instances, however, where the location of schools could be improved by placing them closer to the physical center of the community: This would prevent the overlapping of school districts of two adjoining communities and thus tend to strengthen the local community identification and cooperation. It would also ameliorate such problems as small children crossing busy traffic arteries.

b. Junior High Schools

Full junior high schools or temporarily combined junior high-elementary schools are found in five communities. As this segment of the educational system is strengthened. It is expected that community areas, and boundaries will be given careful consideration.

c. Senior High Schools

The seven public senior high schools are located in the following communities: North Newark, West Side, Clinton Hill, Weequahic, Ironbound, and West Market. The only sections of the city which are not relatively convenient to high schools are Vailsburg and the extreme north end of the city. In most other cases, students live within a mile of the high school they attend.

All high schools draw students from respective designated

districts, with the exception of Arts High in the Downtown district. This school is primarily for students excelling in art or music, and admission is by city-wide examination. It is the smallest high school in the city, with an enrollment of 700 students. The largest and newest high school is Weequahic, constructed in 1932, with an enrollment of more than 2000 students.

3. School Construction

Five elementary schools: Waverly Avenue; South Market Street; South Tenth Street; South Street; and Monmouth Street are beyond reasonable repairs and in the future will be replaced. Two more junior high schools are proposed for a total of eleven junior high schools. No new senior high schools are proposed, but Barringer High is slated for replacement.

A number of existing schools are being improved with new classrooms, hygienic facilities and fire safety devices where necessary and feasible. Recently, some schools have also been modified to conform to the new K-6-3-3 system.

In spite of all these changes, both completed and proposed, Newark's educational plant, like that of most older eastern cities, is old and in several instances inadequate. The real school problem facing the city is to lift the existing school plant up to at least minimum standards. Thirty five classroom buildings are more than fifty years old. Additions sometimes have been tacked on to many structures with little regard for convenience and safety.

Progress in school construction is hampered by the high cost of building and the dearth and high cost of suitable land. As the city is densely populated, except for the presently underdeveloped Meadowlands, acquisition of large school sites has always been difficult. Most of the existing schools occupy sites which are much smaller than the minimum standards generally accepted by school planning authorities. There are only a handful of establishments that have sites consisting of more than one acre of land. In the new schools, the maximum goal considered attainable is an entire city block in which the school will be situated, usually three or four acres in size, with the school designed for a pupil capacity of 800-1600.

Some of these problems seem to suggest that Newark school structures might be built higher and with less land coverage than is now practiced or proposed. This would alleviate the problems ensuing from small sites, and particularly would give students more adequate recreation space without seriously detracting from their general education.

These problems should be considerably aided by the city's urban renewal program. In conservation and rehabilitation areas, renewal funds can be used for the acquisition of larger sites. In clearance areas, adequate sites will become an important element in the physical plans.

4. Conclusion

Newark school problems can and should be solved through the coordinated efforts of all city agencies. It is hoped that the Central Planning Board can play a major role in this coordination. The Planning Staff is undertaking an analysis of school standards applicable to the densely built-up city. Much further study is needed in this area.

Newark's largest capital expenditure is that made for schools. The integrated capital improvements program and urban renewal plan, which will result from the completion of the present project, will be better able to provide for and align the forces necessary to the accomplishment of Newark's educational goals.

E. COMMUNITY FACILITIES: RECREATION

1. Existing Park and Associated Recreation Areas

a. General Review

Newark was largely built up before the value of public recreational facilities had been fully understood. During the time the city was developing, no standards for the various types of facilities had been established, and the pressure for building space caused the authorities to be particularly conservative in providing park areas, especially playgrounds and local neighborhood parks. This is why renewal of the city and its communities and neighborhoods requires special attention to be focused on the recreational question.

Park areas in Newark are administered by (1) the Bureau of Parks and Grounds, in the City's Department of Public Works, (2) the Essex County Park Commission, and (3) the Newark Board of Education, but practically no active public recreation is provided by the city except within the school system. The total park grounds cover 878 acres, exclusive of areas outside the city limits.

The limited city facilities include a number of ornamental parks and squares, playgrounds, and swimming pools. The latter are under the supervision of the Bureau of Baths in the Department of Public Works and include four such facilities: Hayes Park Pool on Jelliff Avenue, Boylan Street Pool, Waydell Park Pool and Rotunda Pool on Clifton Avenue.

The County Park Commission is the principal park agency serving Newark. It owns and maintains in Newark two large and five neighborhood-size parks and conducts many activities in these and other areas. Beyond the city limits, Essex County owns and operates numerous other parks, most of which are of neighborhood-size, serving primarily local areas. It also owns and operates two large reservations: Eagle Rock and South Mountain Reservations, which are used extensively by Newark residents. On the other hand some local Newark parks are also frequented by people from adjoining municipalities.

A summary of the total park area follows:

TABLE II-5
PARK FACILITIES SERVING RESIDENTS OF THE CITY OF NEWARK

Type of Facility	Total Number	Approximate Total Acreage
Ornamental Squares and Playlots	35	28
Playgrounds (Board of Education)	59	54
Playfields (Board of Education)	5	39
Neighborhood Parks (County)	5	106
Large Parks (County)	2	651
Sub-total (inside Newark only)	106	878
Reservations (Newark pro-rated share)	2	1,260
TOTAL	108	2,138

The policy of the Essex County Park Commission is to acquire park land tracts of ten acres and over. This enables the Commission to plan for multiple active and passive recreational use. However, there is very little vacant land left in Newark that is suitable for such purchases.

Indoor recreational facilities at three of the precinct police stations have been adapted for use as neighborhood recreation centers under the sponsorship of the Police and Firemen's Benevolent Association. Supervision is provided by the Police Department.

Numerous private and social agencies located throughout the city offer indoor and outdoor recreational facilities to a large number of citizens. Since in general the activities of the private and social agencies are largely confined to indoor recreation and education, many of the organizations have to rely on public facilities such as Branch Brook Park or the reservation areas for outdoor activities.

b. Reservations

The Essex County Park System contains two large reservations, Eagle Rock and South Mountain, both of which are situated in the Orange Mountains, a range of large hills about four miles west of Newark. While these reservations lie outside the Newark city limits, they are available to the residents of the city. Assuming that the areas are used in proportion to the total Essex County population, of the 2,462 acres in the two reservations, slightly more than 1,260 acres, or more than half of the area, may be statistically assigned to Newark residents. Thus the reservations are comparable to city-owned out-lying parks found in the park systems of other large municipalities.

c. Large Parks

The two large Newark parks of the Essex County Park Commission are as follows: Branch Brook Park, located mostly within the North Newark community, contains a total of 496.8 acres. Of these, 339.8 acres lie in Newark proper and the remainder in Belleville. Two playgrounds are located at the south end of the park, in the section of the city where such facilities are intensively used. A wide variety of facilities are available in the park for both active and passive recreation, including ponds for boating and fishing. Barringer High School is located along the east side of the park, and many of the school's recreational activities are carried on in this park.

The features of Branch Brook Park are a group of greenhouses where plants used in the park are raised from seeds and cuttings; chrysanthemum show held in the greenhouses annually late in the fall; and 2,400 Japanese Cherry trees, which in the spring are the object of wide interest throughout northern New Jersey and attract crowds of motorists to view their striking beauty (thus creating a traffic problem).

A park drive through Branch Brook Park carries a heavy amount of automobile traffic, destined mostly for Belleville, Bloomfield, Nutley and other surrounding communities. While this problem of park motor traffic is by no means limited to Newark (and is found in other cities throughout the country), it may be necessary to reconsider the functioning of the road system which impairs the use of the park for recreational purposes.

Weequahic Park is located at the southern end of the city and contains 311.3 acres. It is also part of the County Park System and the entire area lies within the city limits of Newark. It has an 85 acre lake which affords boating and fishing facilities. Among the other features of the park are a golf course, a large playfield and playground, a trotting horse track and a grandstand. There are facilities for both active and passive recreation and a beautiful rose garden.

d. Neighborhood Parks

The five neighborhood-type parks within the city limits are the following. Independence and River Bank Parks are located in the Ironbound community, an area of high population density and numerous industrial plants. Independence Park contains over 12.9 acres and typical facilities for local recreation, including tennis courts, track, playground and playfield, bicycling areas, baseball diamonds, field houses and the like. River Bank Park contains 10.8 acres, but a part of the area lies north of Raymond Boulevard and is not now developed for recreational use. The southern portion has facilities for active recreation for children and adults. Students at East Side High School use the facilities for organized sports practice.

West Side Park is located in the West Side community, a densely populated area where there are few recreational facilities. The park contains 31.4 acres and the usual local recreation facilities.

There are two parks in the Vailsburg community. Vailsburg Park, located along Oraton Parkway contains 31.7 acres and is fully developed for recreation. Ivy Hill Park, containing over 18.9 acres, is located at the eastern end of the city, between the Ivy Hill Sanatorium grounds and Seton Hall College. While this park lies almost entirely within the city limits of Newark, it adjoins South Orange and is largely used by residents of that community.

e. Playfields and Stadia

Three large playfields are located within high school grounds; one in the southwestern, and the others in the west central and southern parts of the city. All three are administered by the Board of Education. The West Side playfield, exclusive of buildings and landscaping, occupies 4.2 acres. Weequahic High School and Chancellor Avenue Elementary School, located on adjacent properties, have a joint playfield which occupies a full block with an area of nearly 3.4 acres, but is separated from the high school by the elementary school. Rippel Field across the street from South Side High contains 1.7 acres of play space.

Playfields are also provided in the county parks in combination with other facilities, as follows: Branch Brook - four, Weequahic - one, Riverbank - one, West Side - two, Vailsburg - one, and Ivy Hill - one.

Memorial Stadium (the former ball park of the Newark Bears), whose possible abandonment for industrial purposes recently prompted the Ironbound Recreation Proposal by the Central Planning Board Staff, is located on the corner of Amsterdam and Wilson Avenue. The stadium and the adjacent property owned by the Board of Education totals 21.2 acres. Its location is unfavorable to small or unorganized recreational needs, or the play needs of younger age groups, but it does offer facilities for adult and spectator athletics. The Public School Stadium, 8.3 acres, located on Bloomfield Avenue between Roseville Avenue and North Tenth Street, provides playfield facilities for all secondary schools and is used for intramural sport.

f. Playgrounds

The Recreation Department of the Board of Education operates and supervises playground facilities at elementary schools and conducts programs at eight public housing projects. While in 1945 there were a total of 45 supervised playgrounds, with a total area of 27.2 acres, in 1958 there were a total of 59 such playgrounds, with a total area of approximately 54 acres.

g. Ornamental Parks and Squares

All of the park spaces owned by the city and operated by the Bureau of Parks and Grounds fall in the category of ornamental parks and squares. There are 41 such areas, varying in size from six acres to minute land strips; Military Park in the Central Business District being the largest.

2. Recreation Administered by the Board of Education

a. General system

The public community recreation program in Newark is school-administered. It operates under the jurisdiction of the Board of Education from which it derives its budget. The Board's Recreation Department functions under the supervision of the Superintendent of Schools.

To meet a growing demand, the Recreation Department has gradually expanded since 1902, when a few play areas were open during the summer vacation period, to the present all-year recreation program conducted in sixty school buildings with their adjacent play areas and eight housing projects. Thirty three of these buildings function as community centers for all age groups, while the remaining twenty seven offer secondary playgrounds and housing project playgrounds primarily for school-age children. Secondary and housing project playgrounds are affiliated in staff and program with community centers in their vicinity. They serve as "feeders" in directing older age groups to the community centers for teen-age and adult evening activities.

b. Organization and Staff

The director of the department is assisted by three supervisors who serve as consultants to the school principals and advisers to the teaching personnel. The school principals are in charge of the schools, playgrounds and community centers at all times. Under their guidance, the recreation staff is responsible for the development of a broad program of recreational activities designed to meet the needs and interests of the children and adults living in the neighborhood.

At present, the Board of Education employs one hundred full-time licensed recreation teachers for the regular school year. During July and August, two hundred teachers are assigned to 69 playgrounds for the "Expanded Summer Recreation Program." Approximately five hundred part-time specialists and sports officials serve in various capacities throughout the year. Many volunteers are recruited to assist in the total program.

c. Program

The program is comprehensive in scope. It includes arts and crafts, athletics and gymnastics, dancing, dramatics, music, club organizations and special activities such as socials, holiday programs, scouting and hobbies of all kinds.

It is primarily for school children in the afternoon and early evening hours, and for teen-agers and younger adults in the evenings. A special program for adults is conducted from October to March on two evenings a week. City-wide athletic leagues and tournaments for industrial, commercial, banking and insurance firms, as well as neighborhood club and church teams, are conducted from October to March two evening a week in major athletic centers and playfields.

3. Park and Recreation Standards

a. Purpose of Standards

A comprehensive recreational renewal plan for Newark's component communities and neighborhoods will be based on a set of standards for all types of public recreational areas. However, these will not be rigid prescriptions. It is intended that they be applied as general rules, and subject to both upward and downward revision, as various conditions dictate in the planning of specific facilities.

With these qualifications, the standards will provide the framework for planning the long-range development of a recreation system in which can be integrated the facilities of the City of Newark, the Board of Education and the Essex County Park Commission.

b. Basis for Standards Development

In order to provide systematic and uniform means of designating the type, location, and size of park and recreational areas in relation to the location of homes and the needs of children, youths, and adults, the staff of the Newark Central Planning Board has developed a series of recreational standards.

Parenthetically, these standards are based on certain unit areas per person in the group to be served by respective facilities. But for convenience of application, the standards are stated in terms of acreage per thousand persons. Previous studies of recreational area requirements indicate that most available standards are impractical in application to the greater part of the city, where both residential and non-residential existing density (higher than the urban average) results in prohibitive acquisition costs. Large open sites are generally not available, and the voluntary or enforced purchase of buildings which must be torn down to produce cleared sites further inflates the expenditures.

However, it is felt that, in areas where the full desirable standard of land area is unattainable, an acceptable recreation service could be provided by increasing the schedules for the use of the facilities. To determine a practical and at the same time acceptable system, which would recognize both the basic recreational requirements and the special difficulty of providing the fully desirable recreational sites in built-up areas, a set of modified standards has been prepared.

An overall preliminary standard of three acres per 1,000 persons has been applied to determine a realistic amount of park land for the entire city of Newark. Then, another set of individual standards allowing desirable areas for all major open recreation components, (playgrounds, playfields, neighborhood and large parks) has been tested to determine the percentage of land needed for each such component. It will be seen from the data

below that this testing produced a total city land requirement of over 3,080 acres which is relatively very high and unattainable in the foreseeable future. Therefore the modified overall standard of three acres per 1,000 persons was retained, and its application resulted in the total city requirement of 1,275 acres. This does not refer to, or include, recreational areas outside the city, serving Newark residents.

An additional study is necessary due to the fact that the daytime population of Newark is approximately twice as large as the permanent resident population. This factor has not been applied in the present preliminary calculations.

c. Comparative Standards

The following information is included for the purpose of providing a comparison between the modified standards presented in Table II-6 and the generally desirable standards supported by the National Recreation Association.

National Recreation Association Recommendations

- (1) Playgrounds -- should range from 4 to 7 acres, with 1 acre for each 800 population;
- (2) Playfields -- should range from 12 to 20 acres, with 1 acre for each 800 population. There should be a playfield within $\frac{1}{2}$ to one mile of every home, the distance depending upon net population density and ease of access:
- (3) Neighborhood
Parks -- may range anywhere from 2 to 50 acres, depending on community needs for such facilities, and there should be at least one such park in every square mile of the city.
- (4) Large Parks -- should range from 100 to 300 acres within the city limits
- (5) Experience in the provision and use of municipal recreation areas has demonstrated that in general any city seeking to furnish a well-balanced recreation program for its people will need at least one acre of permanent publicly owned open space for each 100 population. It is expected that a city which has an acre of playground for each 800, and an acre of open space for each 100, will thus have $12\frac{1}{2}$ percent of its open space in playgrounds and $12\frac{1}{2}$ percent in playfields.

4. General Goals For Open Recreation

a. Introduction

As Newark parks range from small "ornamental" open spaces to large parks and reservations, the present renewal project is primarily (though not exclusively) concerned with parks in the middle range. Generally, the city is satisfactorily served by its large parks and the outside reservations maintained by the Essex County Park Commission.

The smaller urban open spaces are properly a part primarily of the residential fabric of the community and should be designed integrally.

TABLE II-6

PRELIMINARY PROPOSED PHYSICAL RECREATION FACILITY STANDARDS, CITY OF NEWARK

A. DESIRABLE BY INDIVIDUAL FACILITY TYPE:

	Acres Per 1000 Persons
1. Playground	1
2. Playfield	1 1/4
3. Neighborhood Park	1
4. Large Park	4

B. CITY-WIDE OVERALL STANDARD JOINTLY FOR ALL FACILITIES:

3 Acres Per 1000 Persons

C. APPLICATION OF STANDARDS

Application of Overall Standard: $\frac{425,000^*}{1000}$ persons x 3 = 1275 acres

Application of Desirable Standards For Major Facilities:

Playgrounds $\frac{425,000}{1000} \times 1 = 425.00$ acres

Playfield $\frac{425,000}{1000} \times 1\frac{1}{4} = 531.25$ acres

Neighborhood Parks

$\frac{425,000}{1000} \times 4 = 1700.00$ acres

TOTAL..... 3081.25 acres

Percent of Total Acreage Needed For Major Components x Overall Standard

$\frac{425.00}{3081.25} = 13.8\% \times 1275 = 175.95$ acres

$\frac{531.25}{3081.25} = 17.2\% \times 1275 = 219.30$ acres

$\frac{425.00}{3081.25} = 13.8\% \times 1275 = 175.95$ acres

$\frac{1700}{3081.25} = 55.2\% \times 1275 = 703.80$ acres

TOTAL..1275 acres

*Rounded-out figure representing roughly the total population of Newark.

With the expected increase in urban renewal projects in Newark, such open spaces may be easily provided in the general Neighborhood Redevelopment Plans. Although they are related to the comprehensive recreation plan, small open spaces will be discussed in detail in the residential components of the renewal plan.

b. Large Parks

For the purpose of this report, a large park is defined as a tract of land, ordinarily over 10 acres in size, intended to afford a place primarily for passive recreation and pleasant natural environment for all ages. It is designed, developed and supervised for the diversified use of large numbers of people.

The location of large parks depends upon the availability of land that is suitable to size, topography, and other natural features. Because of the lack of available additional land and the present satisfactory large park acreage, the priority need is for more neighborhood parks and supervised children's playgrounds and playfields.

c. Neighborhood Parks

A neighborhood park is defined as a relatively small area (generally, less than 10 acres in size), intended primarily to provide an attractive neighborhood setting and to afford quiet passive recreation for people of all ages. It generally consists of an area with open lawn, shrubbery, trees, walks, and benches. In addition, it may have one or more special features such as a fountain, pool, sand box, or other play apparatus for small children.

Because of the nature of the neighborhood park, its space requirements are more flexible than in the case of the playground and playfield. Though the range should be between 6 and 10 acres, in special circumstances smaller areas will also be acceptable, including irregular parcels of less than 6 acres, which may be developed as part of an Urban Renewal Plan.

d. Playfields

A playfield is defined as a facility designed to meet the active recreation program needs of youths and adults. The primary requisites are large outdoor playing fields for organized sports, a recreational building, and a children's play area. It is also desirable that swimming pools be developed in connection with playfields.

Playfields require 8 to 20 acres. As in playgrounds, several variables affect size, but, generally speaking, sites in the upper range are proposed for acquisition and development.

Accessibility is a different problem when the primary users are youths and adults. Although playfields are likely to be more closely spaced in the inlying than the outlying areas, in most cases the service area may exceed walking distances. Therefore, although central location to the estimated service area is desirable, easy accessibility by transit and automobile is more important.

e. Playgrounds

The renewal planning will emphasize the playground. It is defined here as a facility designed primarily for active children's recreation, and including such components as a tot lot, junior play area, softball field and possibly a recreational building.

The primary determinant of playground size is program. It has been found that an area of less than 3 acres does not easily permit the inclusion of the physical development necessary for a balanced program, regardless of the intensity of recreational supervision. Therefore, for practical reasons, the minimum standard of 3 acres will be used, except when a special neighborhood situation or the relationship to other community facilities, such as schools or community centers, will demand larger areas.

As exposure to local traffic is greater--for an equal distance walked--in a high density area than a low density area, the spacing of playgrounds in high density should be reduced to provide an equitable standard of service throughout the community. The spacing standards proposed for playgrounds are as follows:

Density more than 60 persons	
per net residential acre.....	3/8 mile radius
Density less than 60 persons	
per net residential acre.....	1/2 mile radius.

f. Playlots

Playlots are defined as small areas for recreation designed to be used by pre-school age children. Such lots may be developed on available small sites, perhaps 50 by 125 feet or even smaller. Usually a public facility of this type is justified only in very congested parts of the community, where individual dwellings or apartments lack sufficient yard space for normal play by very young children. Playlot equipment is simple, consisting of swings, slides, sand boxes and possibly additional masonry or metal play devices.

Often a playlot is referred to as a playground or small park, but for the purpose of the present report the latter categories refer to much larger spaces serving greater residential areas and providing more extensive recreation opportunities for older children.

g. Conclusion

The Newark Urban Renewal Plan will consider all the means available to increase the amounts of the above recreational spaces for the city and its people. Wherever possible, land will be reserved for playgrounds, playlots, and neighborhood parks within new projects, in order to meet the need and to enhance the value of new construction.

CHAPTER III: DATA ANALYSIS

A. SYSTEMS FOR MEASURING RESIDENTIAL DETERIORATION & BLIGHT

1. Weighted Penalty Scoring Index

a. General Approach

One of the main goals of the punch card analysis was to devise a fast and relatively accurate method of weighting various criteria of deterioration and blight in such a way as to be able to assess the relative conditions on a block by block basis throughout the city.

A systematic approach to the problem of devising reliable indices of deterioration and blight would include the following steps:

- (1) Listing of all the criteria which might in some way be associated with deterioration and blight;
- (2) Testing of these criteria as to their degree of association with a selected set of blocks which are blighted in varying degrees and are selected by the best authorities available;
- (3) Testing and re-testing the numerical indices, using weights to imply relative values, until that set of criteria is found which, when weighted in a certain way, will give the most positive association with deterioration or blight; as indicated by the authorities mentioned above;
- (4) Possible further refinement, until the composite index yields a better picture of deterioration or blight than can be determined without such an index.

The particular system developed through the present project was limited to the application of those criteria which could be tested from the data available on the punch cards. The principal effort was to quantify and weight these criteria in such a way that they would yield the highest possible degree of association with deterioration or blight in Newark insofar as the latter could be determined by experienced independent judgement in the field. The practical result was a fast method of making certain urban renewal priority determinations, based on the actual needs of each area, and of delineating these areas by type of renewal treatment. Because of the quantity of data involved, hand scoring of this data would have been inoperable due to problems of time and accuracy.

The scoring index is divided into two general categories: Technical (physical) criteria, or those relating solely to the individual structures, and environmental criteria, or those relating to the

block as a geographic unit.

As in all penalty scoring systems, penalties are assigned for factors which lead to blight. The higher the score, therefore, the more deteriorated or blighted the structure or block.

b. Technical Penalties

The data on the punch cards relevant to condition of structure are the depreciation percentage, obsolescence percentage, final net condition percentage, heating units, and plumbing units. As has been pointed out earlier, the depreciation and obsolescence percentages (and their combination-final net condition percentage) include a wide variety of structural deficiencies. It was realized that the final net condition percentage alone was probably one of the best composite indices of blight which could be developed.

Initial testing of the final net condition percentage was made by comparing this percentage with structures in the few selected redevelopment areas which had been inspected and classified into conservation, rehabilitation and clearance categories by the field staff of the Newark Housing Authority. This analysis showed that low final net condition percentages were almost always associated with structures identified by the Housing Authority as in the clearance category. However, a certain degree of discrepancy occurred because higher percentages sometimes were found in this category. One of the problems involved in this comparison, however, was that the treatment categories of the Housing Authority were not always dictated scientifically by independent judgement. Practical redevelopment problems were also given consideration, which in the present project would enter the picture at a later stage.

It was generally determined that final net condition percentages which fell below 35 percent almost always were connected with clearance structures. It will be remembered that physical depreciation stopped at 70 percent (see Appendix Table II). This is the equivalent of a 30 percent final net condition if other factors are not included. Shortly before the end of what might be called the depreciation cycle, therefore, would seem to be the time appropriate for clearance. Thus from both these sources, 34 percent or below seemed to be a reasonable clearance level. Weights given to the various final net condition percentages are listed in Table III-1.

As yet unaccounted for were structures which had, for one reason or another, higher final net condition percentages but were classified on independent inspection as clearance units. In order to compensate for this phenomenon, the factors of heat and plumbing were added to the system. It was felt that if a structure had a higher than clearance net condition percentage, and yet contained certain basic deficiencies in plumbing and heating, it should in some cases be dropped into the clearance category.

The only information available on plumbing was the total number of fixtures per dwelling unit. Adequate plumbing was determined

to mean three plumbing fixtures per dwelling unit (normally a sink, toilet, and bath tub). Such a condition received no penalty points. If one fixture was missing, five penalty points were applied. The presence of less than two fixtures scored ten points, and less than one fixture scored 15 points. No running water at all (which occurred rarely) gave a maximum of 20 points for this section of the index. The number of fixtures per dwelling unit actually worked out into fractional ranges up to three or more because of the averaging of the total number of fixtures by dwelling units for each structure. (See Table III-1) (The index does not measure the type or condition of fixtures present. Nevertheless, it was felt to offer a reasonably good picture of the structure's plumbing situation.)

The presence or lack of central heat was the sole criterion used in the heating section of the index. Since few residential structures built in Newark during the last 30 to 40 years were not supplied with central heat, this criterion was felt to be a good indicator. No heat at all in a structure (which occurred very rarely) received the maximum penalty of 15 points. The presence of unit or space heaters (which intuitively might be as good a measure of blight as no heat) received 10 points. Central heat on only one floor scored 5 points. Full central heat received no penalty. (See Table III-1)

The clearance level of this weighting system is estimated to be about 40 points. If a structure had a final net condition of 34 percent it would score 40 points, thus placing it in a clearance category. If a structure had a final net condition of 38 percent (35 points), either the lack of one necessary plumbing fixture (5 points) or the lack of central heating on one floor (5 points) would place it in the clearance category. A structure with a net condition of 41 percent (30 points) could have either both of the above additional deficiencies, or only unit heaters (10 points), or the lack of two necessary plumbing facilities (10 points), to be in the clearance category.

It can be seen that the weighting system was worked out primarily by testing it against clearance-level standards. This was done because it was considered a clearer demarcation line than that between conservation and rehabilitation structures, or good and conservation structures. It was expected that the scores would arrange themselves in a workable range, and the other demarcation lines could be established by further analysis. Further analysis may also tend to modify the clearance score which was used in developing the measure.

The final step involved in using the technical index was to develop the index on a block rather than a structure basis. Individual errors are thus partially corrected, and the index is placed on a level of greater generality where it becomes easy to apply for a city of Newark's size. Two different block calculations were devised: The average structure penalty score within the block, and the percent of structures in the block with penalty scores above the estimated clearance level (40 points).

TABLE III-1

WEIGHTED PENALTY SCORING INDEX
FOR RESIDENTIAL DETERIORATION OR BLIGHT,
IN INDIVIDUAL STRUCTURES, CITY OF NEWARK

Final Net Condition

<u>Percent</u>	<u>Weight</u>
0-19	60
20-24	50
25-29	45
30-34	40
35-39	35
40-44	30
45-49	25
50-54	20
55-59	15
60-69	10
70-99	0

Plumbing

<u>No. of Fixtures Per. D. U.</u>	<u>Weight</u>
3 or more	0
2-2.99	5
1-1.99	10
.99 or less	15
no running water	20

Heating

	<u>Weight</u>
Central heat	0
Central heat (one floor only)	5
Unit heaters	10
No heat	15

The use of these two indices will be explained below.

c. Environmental Penalties

It is quite clear that blocks are made up of both individual structure deficiencies and deficiencies which relate to the whole block.

Three important environmental criteria could be determined from the punch card data: Building coverage, incidence of non-residential uses, and percent of mixed residential and commercial uses within the block. All three of these factors were weighted about equally, and the three together, on the average, amount to about one half of the total weight for physical deficiencies. This differential weighting stood up under testing procedures, and it is approximately the same differential as that devised by the American Public Health Association.

These three criteria are perhaps not the most crucial, and they are by no means the only indicators of environmental blight. They are, however, among the most generally used in current practice and were, as has been mentioned, immediately available for use. The following weighting systems are partly arbitrary, but represent the best present judgement of the Planning Staff. (See Table III-2)

d. Building Coverage

The weights for building coverage were adapted from the standards set by the American Public Health Association. Building coverage (ground area) is modified by the average number of stories in the block, in order to obtain a better measure of the actual situation.

e. Incidence of Non-Residential Land Uses

This is the percent of land area in the block devoted to commercial and industrial uses. Since certain non-offensive commercial or industrial structures would tend to have less of a blighting effect than others, the average final net condition percentage for commercial and industrial structures in the block has been included as a modifying factor in the penalty system.

f. Incidence of Mixed Uses

If a mixed commercial-residential structure had more than one dwelling unit and was two or more stories in height, it was classified as a "predominantly residential structure" when determining the incidence of non-residential uses mentioned above. Quite clearly a great many of these in one block would tend to give less validity to the scale. For this reason, and because mixed uses are one of the most important land use problems in Newark, a scale was devised to measure the percent of mixed commercial-residential land area of the total residential-plus-mixed area.

TABLE III-2

WEIGHTED PENALTY SCORING INDEX
FOR RESIDENTIAL DETERIORATION OR BLIGHT,
IN BLOCKS (ENVIRONMENTAL), CITY OF NEWARK

--BUILDING COVERAGE--

<u>Percent Coverage</u>	<u>No. of Stories</u>		
	<u>1-2.5</u>	<u>2.4-5.5</u>	<u>5.5+</u>
	<u>Weight</u>		
0-29	0	0	0
30-39	2	3	4
40-49	4	5	6
50-59	6	8	13
60-69	10	13	16
70+	13	16	20

--NON-RESIDENTIAL LAND USES--

<u>Percent Non-Residential (Commercial & Industrial)</u>	<u>Average Net Condition (Commercial & Industrial)</u>				
	<u>80-100</u>	<u>60-79.9</u>	<u>40-59.9</u>	<u>20-39.9</u>	<u>0-19.9</u>
	<u>Weight</u>				
0	0	0	0	0	0
0.1-4.9	2	3	4	5	6
5-9.9	3	4	5	6	7
10-14.9	4	5	6	7	8
15-19.9	5	6	7	8	9
20-24.9	6	7	8	9	10
25-29.9	7	8	9	10	11
30-34.9	8	9	10	11	12
35-39.9	9	10	11	12	13
40-44.9	10	11	12	13	14
45-49.9	11	12	13	14	15
50+	12	13	14	15	16

--MIXED USES--(Area of Mixed Uses as percent of total
area of mixed and residential uses.)

<u>Percent</u>	<u>Weight</u>
0	0
0.1-4.9	2
5-9.9	4
10-14.9	6
15-19.9	8
20-24.9	10
25-29.9	12
30-40	14
40-50	16
50-70	18
70-100	20

The above measurements of environmental blight were applied only to blocks which are predominantly residential in land utilization. It is apparent that they would be meaningless on predominantly commercial or industrial blocks.

g. Validating and Applying Weighted Penalties

The Weighted Penalty Scoring Index is best used when it combines the block average technical score with the block total environmental score. The estimated clearance level of the combined index is 50 points. This index was machine-calculated for every residential block in the city. However, it was applied only to those blocks which are predominantly (50 percent and over) residential in land area. Over 60 percent of the city's blocks fall into this category.

An end product of a scoring system such as this should be reasonably sound statistically. But there are obvious weaknesses to any system based on individual observations and value judgements. These weaknesses are partially disguised by the seeming objectivity of a statistical approach. The fact that block data is the product of only one observer, (perhaps not thoroughly trained) and that biases result from the duplication of penalties, are examples of possible flaws. To this must be added the additional error discussed earlier in this report. However, since the present study does not presume to be the basis for detailed project design, it is felt that these limitations are not too serious at the level of detail undertaken.

Above all, however, the end product of the scoring system should not be contrary to the common sense values of experienced renewal planners, architects, and realtors. In the development of the Weighted Penalty Scoring Index, thirty blocks within the City of Newark were picked for the purpose of checking the system's validity. These thirty blocks were initially selected by a member of the Planning Staff with an excellent knowledge of Newark conditions. He was asked to pick three sets of blocks (ten each) and rate them according to their degree of blight. He was also instructed to use his judgement in assigning all blocks to one of four general categories: Good (A); Conservation (B); Rehabilitation (C); and Clearance (D). The three sets of blocks were picked so that those blocks of the same rank in each set were located in different parts of the city.

These thirty blocks were then independently field checked as to ranking and classification. The results of both rankings were close, except that the field checkers placed a somewhat higher percentage of blocks in the clearance rather than rehabilitation category. Many blocks were so close as to cause some difficulty in ranking one higher than the other.

The rankings and classifications of thirty blocks were then checked against the results achieved by scoring these same blocks according to the technical and environmental Weighted Penalty Scoring Index. Two of the three sets of blocks compared almost perfectly with the field rankings and classifications. The third

differed by a slight amount.

During the further analysis, after the scores had been machine tabulated, it was found that the incidence of non-residential uses factor of the environmental score detracted from the validity of the remainder. For this reason the following analysis is based on an environmental score containing only two criteria: building coverage, and incidence of mixed land usage.

Rank correlation was used to find the degree of association between the office scored ranking and the field tested ranking of the thirty sample blocks. Rank correlation is a fast and acceptable method of finding the degree of association between sets of numbers when no numerically equivalent values are available. The correlations are interpreted in much the same way as linear correlations, but it must be emphasized that the correlations are of rank and not of numerical value. Higher rank correlations are much more common and appear even when the ranks seem to be considerably out of order. This is because numerically close rankings are often arbitrary. The large discrepancies in ranking are by far the most important, and the coefficient of the rank correlation (Rho) is a function of the square of the difference between the sets of rankings.

The coefficient of rank correlation (Rho) for the scored rankings compared with the known rankings was .945. This is an extremely high correlation and shows an excellent degree of association. The correlation using the technical index alone was .935. When the incidence of non-residential uses was included in the environmental score, the correlation was .932 or slightly below the technical index alone. This meant that in this case the environmental score added nothing to the technical score. The environmental score alone (using all three components) had Rho of .885. It was expected that this should fall lower than the others.

By correlating the block percent of structures scoring over 40 points, Rho was .927. This is lower than the average score correlation, indicating that the latter is a somewhat better measure. This is probably because it tends toward the middle point of structure deficiency scores, rather than concentrating on the extremes.

The final net condition percentage correlated higher than any single component of the index (Rho = .912). This was in line with the previous assumption that the final net condition percentage was one of the best single indices of blight available.

In the comparison between the office scored rankings and the field tested rankings, using the completed index (Rho = .945), only four of the thirty office scored blocks fall outside the field-designated renewal treatment categories (See Table III-3). These were mostly borderline cases, except perhaps in the clearance category, where different value judgements played a major role in the discrepancy.

Table III-3 shows the average percent of clearance associated with the four renewal categories of the thirty blocks. This is based on the percent of structures whose penalty scores were above the clearance level--40 points, and well expresses a basic premise that the renewal categories were essentially derived as a function of the amount of clearance indicated by the score. This premise actually signifies the existence of a continuum of conditions requiring from "no clearance" to "total clearance" (A to D). Thus the breakdown into four renewal treatment categories is made for purely practical reasons.

Table III-4 shows the distribution of predominantly residential blocks in the city in terms of their penalty scores. Average clearance treatment levels are also shown. These were derived in the same manner as described above. Much more analysis must be undertaken before the validity of the lines separating the types of renewal treatment can be firmly established.

TABLE 111-3

COMPARATIVE ANALYSIS OF THIRTY SAMPLE BLOCKS
BY WEIGHTED PENALTY INDEX AND FIELD TESTING,
CITY OF NEWARK

Block No.	--Rank-- Field Tested Office Scored		Total Penalty Score	Tech. Penalty Score	Envir. Penalty Score	Per- cent 40 & over	Aver. Clear- ance Per- cent	Treatment Renewal Cate- gory
669	2	1	7	7	0	0	0	A (Good)
742	4	2	16	16	0	0		
4177	3	3	16	16	0	0		
686	1	4	19	19	0	0		
3003	7	5	22	20	2	0	2.6	B (Conser- vation)
3004	5 (A)*	6	24	24	0	0		
735	11	7	24	24	0	0		
527	13	8	24	22	2	0		
718	9	9	25	23	2	0		
558	8	10	27	27	0	18		
3039	6	11	27	25	2	5		
762	10	12	28	26	2	0		
3024	14	13	29	29	0	0	22.7	C (Rehabili- tation)
421	16	14	34	29	5	7		
3020	15	15	36	30	6	19		
491	12 (B)*	16	42	33	9	23		
2587	19	17	42	32	10	18		
29	18	18	44	28	16	17		
483	20	19	45	37	8	38		
205	22	20	47	35	12	37		
2558	23	21	50	44	6	73	71.0	D (Clearance)
229	28	22	50	42	8	66		
204	17 (C)*	23	53	37	16	36		
232	21 (C)*	24	55	38	17	45		
881	26	25	59	51	8	90		
116	24	26	60	43	17	70		
2510	29	27	71	39	32	45		
2553	30	28	76	55	21	93		
253	25	29	79	53	26	95	97	
236	27	30	81	55	26	97		

*Indicates renewal treatment category which was derived from field testing

TABLE III-4

DISTRIBUTION OF WEIGHTED PENALTY INDEX SCORES,
BY PREDOMINANTLY RESIDENTIAL BLOCKS,
CITY OF NEWARK

Scoring Range	--Sample*-- Number of Percent Blocks		Universe (city) No. Blocks	Average Percent Clearance	Per- cent of Total Blocks	Renewal Category
0-9.9	11	5	66	0	21%	A
10-19.9	35	16	210	0		
20-29.9	49	22	294	3.5	22%	B
30-39.9	50	23	300	12		C
40-49.9	38	17	228	34.1	40%	
50-59.9	18	8	108	60.2		
60-69.9	9	4	54	69.5	17%	D
70-79.9	7	3	42	83		
80-89.9	4	2	24	93.7		
90-99.9	<u>0</u>	<u>0</u>	<u>0</u>			
Totals	221	100	1326			

*Based on 17 percent random sample.

2. Composite Housing Condition Index

a. General Approach

Many cities find that the only data available for assessing the local condition of housing is that in the 1950 Census of Housing. Even if additional and later information can be obtained, as in the case of Newark, the Census data remains an authoritative source for checking and supplementing other material.

The present project made an attempt to devise an index of housing quality and of incidence of blight by block, using the Census data. The resulting product is identified as the Composite Housing Condition Index. Items in the Census were examined and three were selected as pertinent to the renewal problem:*

- a. Dwelling units having no running water or dilapidated;
- b. Dwelling units having no private bath or dilapidated;
- c. Dwelling units having 1.51 or more persons per room.

Other Census items were considered which indicated quality of housing less directly--average monthly rent for renter occupied units and average value for one-dwelling-unit structures. These two items, however, are a function of the size of the unit, structural materials, the quality of repairs, and neighborhood, market conditions, etc. It would be very difficult to standardize these data by block, hence their inclusion may tend to distort the index. The items were accordingly omitted.

It should be noted that the three items used were collected in Newark during 1949, hence they are ten years old at the time of writing this report. These data refer only to dwelling units, in distinction to the previous Weighted Penalty Scoring Index which considered the structure as the basic unit.

The three items obviously differed in importance as a measure of dwelling unit blight. The simple cumulation of these factors on an equal weight basis was ruled out. One reason for this is because it was felt that this would penalize too severely for overcrowding (which is to a large extent social and economic rather than physical in nature and could be corrected by proper code enforcement). A differentially weighted scoring system, and a maximum penalty of 20 points was applied. Degree of dilapidation and presence of plumbing facilities were considered to be the major items relating to quality and therefore were weighted most heavily. Eighty percent of the index, or a maximum of 16 points, was assigned to these two items.

*A similar index was devised by the Philadelphia Redevelopment Authority "Summary Report on the Central Urban Renewal Area" (unpublished) April, 1956

It was felt that having no running water was a much more serious deficiency than having no private bath, hence the first item was assigned 10 of the 16 points, or 63 percent. The remaining four points were assigned to the overcrowding factor. It is evident that the relative weights described are arbitrary, but they represent the carefully considered judgment of those involved in the project. Once the weights of the various factors were established, a system was devised to assign points according to the degree of each existing condition. It was decided that the scoring should be a continuous function of the degree of the condition rather than a system where additional points are assigned at arbitrary breaks in the degree scale. The type and arrangement of the data made this a practical method.

Example - Block A

80% of the dwelling units have no running water or are dilapidated
Score - $.80 \times 10 = 8$ points

50% of the dwelling units have no private bath or are dilapidated
Score - $.50 \times 6 = 3$ points

25% of the dwelling units have 1.51 or more persons per room
Score - $.25 \times 4 = 1$ point

Total Score for Block A - 12 points*

b. Validating & Applying the Index

The Composite Housing Condition was used for all blocks in the city which contained more than five dwelling units. It should be emphasized that it becomes a much less useful tool when applied to a very small area and may be seriously misleading when applied on a smaller than block basis. In addition, the same reservations apply to this scoring system as were pointed out for the previous one.

Table III-5 shows the distribution of Composite Housing Condition Index scores for the city. The attached map shows the block location of these scores throughout Newark. What these scores mean in terms of specific urban renewal treatment has not yet been fully analyzed. However, the following might approximate such a breakdown.

<u>Renewal Category</u>	<u>Score</u>	<u>Percent</u>	<u>No. of Blocks</u>
A	0	28%	506
B	0.1-0.9	27%	499
C	1.0-5.9	31%	573
D	6.0-18+	14%	229

*Note: A possible overlapping-percentage penalty score is intentional.

The breaking points, especially between B and C treatment areas, are rather arbitrary.

Scores for the thirty blocks picked and field tested for checking the Weighted Penalty Scoring Index were ranked in order of magnitude. Rank correlation was made between the Composite Housing Condition Index and the field scored blocks. Rho, in this test, was .86. Thirteen of the scored blocks, however, fell into a different urban renewal classification than the field checked blocks. This is a rather high proportion. It should be pointed out that this correlation is lower than the correlation of the previous system, with the same 30 blocks, but it is still high. This high correlation results from the naturally high association of blighting elements. The correlation between the thirty blocks ranked by the Composite Housing Condition Index and the same blocks ranked by the Weighted Penalty Scoring Index is .78. This is an indication that different blighting components were considered in the two indices. The two do not correlate as highly together as each does with field tested blight. This is probably true of all the diverse indices to measure blight which are in use in various parts of the country. The problem becomes one of selecting that index which has the best predictive abilities in delineating known blight.

A very similar index to the one described in this section was first developed in Philadelphia. The Philadelphia index was tested against sixty-six sample blocks within a study area. The field checkers rated each block according to a scale range of ten points. The index was also divided into a ten point range. It was found that eighty percent of the field scores were within one interval of the Housing Index scores, with thirty percent of the blocks getting an identical rating by both methods. Only twenty percent of the blocks differed by two intervals or more. It was felt in Philadelphia that considerable reliance could be placed on the index as a basis for determining types of renewal programs applicable in each area.

TABLE III-5

DISTRIBUTION OF COMPOSITE HOUSING CONDITION INDEX* SCORE,
BY BLOCK, CITY OF NEWARK

<u>Score</u>	<u>Percent</u>	<u>No. of Blocks</u>
0	28	506
0.1-0.9	27	499
1.0-1.9	11	205
2.0-2.9	8	140
3.0-3.9	5	101
4.0-4.9	4	77
5.0-5.9	3	50
6.0-6.9	3	54
7.0-7.9	1	25
8.0-8.9	2	28
9.0-9.9	1	22
10.0-10.9	 7	17
11.0-11.9		18
12.0-12.9		12
13.0-13.9		12
14.0-14.9		11
15.0-15.9		11
16.0-16.9		16
17.0-17.9		2
18.0+		1
TOTALS	100	1807

*Based on the 1950 U. S. Census of Housing

Note: Divisional lines refer to the groupings used on the accompanying map.

B. LAND USE: BASIC INFORMATION AND PRELIMINARY ANALYSIS

As of the date of the First Interim Report too little time has passed since the receipt of the computer results to permit an extensive analysis of the land use data. This section will outline the basic information on, and include a brief discussion of, the total city land use figures, which represent only a small part of all calculations performed.

1. General Data

Table III-6 shows the system of land use categories and code identification developed for use in this project. The city of Newark has a net total developed and vacant area of about 12,300 acres, exclusive of streets and other rights-of-way, railroad property and water area.* This acreage is composed predominantly of residential, industrial, institutional and vacant land uses. (See Table III-7).

There are approximately 54,000 "principal" structures in Newark (exclusive of accessory buildings), the great majority of which is residential. These structures contain approximately 130,000 occupied and vacant dwelling units.

The total appraised value of Newark's taxable properties is about \$1,850,000,000. The assessed value of all non-taxable (tax exempt) properties is about \$250,000,000. (Since these properties were not appraised in the survey, the assessed value was taken from the Division of Assessment, Department of Finance.) Multiplying this total assessed value by a factor of three** gives the City of Newark a total real property value of close to two and one-half billion dollars.

2. Vacant Uses

The largest single use is vacant land (28 percent), made up of both large tracts in the "Meadowlands" (which comprise the large majority of vacant land in the city) and many scattered sites throughout the urbanized sections of the city. The relatively large amount of vacant land may prove to be one of the most important space reservoirs for Newark's future growth. At present, this land makes up only two percent of the appraised (taxable) value in the city.

3. Residential Uses

Residential land is the largest single use in the developed portion of Newark. On this land are located 73 percent of the city's structures, containing 89 percent of the total dwelling units. Residential uses make up 53 percent of the city's ratables. These figures indicate that Newark is clearly a city in which residential land uses hold a dominant role.

* If the acreage computed by Harland Bartholomew and Associates for the Master Plan of 1947 for railroad property, streets and other rights-of-way, and water area, is added to this net figure, the total area of the city is about 26.9 square miles. The Master Plan of 1947 computed the total city area to be 25.7 square miles. A commonly used figure in Newark is slightly over 23.5 square miles, but it is not known exactly what this is meant to include. Further analysis will try to distinguish between these data and determine which is the more accurate.

** This is the factor which is normally used in Newark to approximate market value. Further study must determine whether it is an accurate figure for approximating the appraised measure of value developed in this survey.

TABLE III- 6
LAND USE SYSTEM, CITY OF NEWARK
BY GENERALIZED GROUP AND SPECIFIC CATEGORY

Code Symbol	Group and Category	Appraisal Code Equivalent
A	<u>Residential Group</u>	
A1	One-family detached & semi-detached	10, 11
A2	One-family attached & row houses	12
A3	Two to six-family	13
A4	Multi-family walk-up	14.01, 14.02, 14.03
A5	Multi-family elevator	14.04, 14.05, 10.06, 17
B	<u>Mixed (in one structure) Group</u>	
B1	Mixed residential & commercial or industrial	22 (with DU's)
B2	Mixed non-residential	22 (without DU's)
C	<u>Commercial Group</u>	
C1	Stores and theaters	20, 27, 45
C2	Offices and banks	25, 26
C3	Hotels and motels	15, 24
C4	Automotive storage and service	28, 29
D	<u>Industrial and Transportation Group</u>	
D1	Warehouses, docks and piers	40, 47
D2	General manufacturing	41, 42.01
D3	Large-bulk manufacturing	42.02, 42.03, 43, 44
D4	Transportation	not listed
E	<u>Institutional Group</u>	
E1	Public educational	36.01
E2	Private educational	36.02
E3	Government and general institutional	30, 31, 32, 33, 34
F	<u>Open Space (Improved) Group</u>	
F1	Park and outdoor recreation	60
F2	Cemetery	62
G	<u>Vacant Group</u>	
G1	Vacant - scattered	00.00, 02.01
G2	Vacant - in "Meadowlands"	00.00, 02.01

The predominant type of residential structures is the two to six-family tenement or apartment. (See Table III-8.) These comprise 57 percent of the residential area, with 63 percent of the residential structures. These units might be called Newark's typical housing stock.

Single-family detached and semi-detached structures make up 29 percent of the residential stock and 30 percent of the residential land area. These structures, however, contain only 11 percent of the dwelling units in all residential facilities.

The attached or row house plays a relatively minor role in Newark, as distinguished from the important position this building holds in such comparable cities as Philadelphia and Baltimore. Multi-family tenement and apartment buildings are about evenly divided between walk-up and elevator structures, and together take up a relatively small amount of residential space. Together, however, they contain 24 percent of the residential dwelling units in the city.

4. Mixed Uses

Mixed uses are made up of both mixed residential-commercial and industrial and mixed different non-residential structures. Together these occupy only three percent of the total net city area. Within these two types, 80 percent is mixed residential-commercial. It is important to note, however, that these structures contain ten percent of the city's total dwelling units and are located along major streets. Since this type of residential environment is generally not very desirable, such use of land presents a serious renewal problem to the city.

5. Commercial Uses

Commercial uses, other than mixed, occupy only a small portion of the city's land. These uses, however, constitute a considerable share of ratables. (See Table III-9).

The majority of commercial uses belong to the category of stores and theaters, making up 57 percent of the commercial area and 74 percent of the number of commercial structures. These commercial categories contain a much lesser share of appraised value, however. On the other hand, office and bank buildings have the largest total valuation while small in area and in number of structures. Automotive storage and service facilities take up a very large portion of commercial land (31 percent), while they amount to only five percent of the total commercial group value. This appears to be another renewal problem area for much further study.

It is interesting to note that more land and structures account for the Mixed (commercial) Group than for the "straight" Commercial Group. This would tend to indicate a certain weakness in the physical plant of the city's commercial activity, but the situation requires additional investigation.

6. Industrial Uses

Industrial facilities use 18 percent of the net land area and comprise 25 percent of the city's appraised ratables. The majority of these facilities are in the general manufacturing category, with large-bulk manufacturing comprising

TABLE III-7
GENERALIZED LAND USE, CITY OF NEWARK,
BY PERCENT OF CITY TOTALS
(Based on Measurement of Net Acreage)

Land Use Code	Area	Dwelling Units	Structures	Appraised Value
A	27%	89%	73%	53%
B	3	10	8	7
C	2	1	4	13
D	18	-	13	25
E	18	-	1	-
F	4	-	-	-
G	28	-	-	2

TABLE III-8
SPECIFIC RESIDENTIAL LAND USE, CITY OF NEWARK,
BY PERCENT OF TOTAL RESIDENTIAL
(Based on Measurement of Net Acreage)

A1	30%	11%	29%	26%
A2	2	2	5	1
A3	57	62	63	61
A4	5	14	3	5
A5	6	10	-	7

TABLE III-9
SPECIFIC COMMERCIAL LAND USE, CITY OF NEWARK,
BY PERCENT OF TOTAL COMMERCIAL
(Based on Measurement of Net Acreage)

C1	57%	-	74%	34%
C2	8	-	5	45
C3	3	-	2	16
C4	31	-	19	5

36 percent of the total Industrial Group. Newark contains a higher percentage of industrial land than most cities of comparable size. This fact helps to point out its importance as a major eastern industrial center.

7. Institutional Uses

These uses, both public and private, take up as much land as is devoted to industrial uses. The group, however, includes the large Newark Airport tract which, for technical reasons, was included in the Institutional Group for the purpose of this tabulation. Institutional uses make up 70 percent of the city's non-taxable assessed value.

These facilities amount to only four percent of the net total city area. They represent about 13 percent of the total assessed value of nontaxable properties.

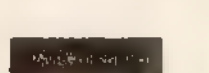




COMPOSITE HOUSING CONDITION INDEX

1950

LEGEND:

	0		2.0 - 3.9		10.0 +
	0.1 - 0.9		4.0 - 5.9	NOTE: INDEX OMITTED WHERE BLOCK CONTAINS 5 D.U.'S OR LESS INDEX INDICATES HOUSING CONDITIONS FROM GOOD (0) TO POOR (10.0+)	
	1.0 - 1.9		6.0 - 9.9		

URBAN RENEWAL
THE CITY
OF
NEWARK, NEW JERSEY

0 1000 2000 3000

SOURCE: U.S. CENSUS OF HOUSING 1950

PREPARED BY: NEWARK CENTRAL PLANNING BOARD DEMONSTRATION PROJECT

DECEMBER 1958

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CHAPTER IV: CRITERIA ORGANIZATION

A. GENERAL APPROACH; RESIDENTIAL AREAS

In order to delineate the different renewal treatment areas, through the process of specific analysis, a set of basic renewal criteria and standards must be established. On these will depend decisions relating to the selection of areas suitable for clearance, pre-clearance, rehabilitation or conservation--either for residential or for non-residential purposes or for a combination of such action.

Essentially, these criteria are used as a measuring stick for survey and planning on several levels. First of all, they serve as a basis for the initial detailed investigation of all aspects of residential and non-residential deterioration and blight. On a broader scale, they will serve as the measure for conducting the continuous ten-year program to designate additional sections of Newark for future urban renewal treatment. This will ensure a relatively permanent and authoritative guide for public and private action in all parts of the city, on the basis of relative urgency, as these parts fall or threaten to fall below the acceptable standards.

Furthermore, it is hoped that the successful application of criteria assembled or developed in Newark will provide a workable instrument of benefit to other municipalities in evaluating their own urban renewal deficiencies and needs. The comprehensive format of the Newark criteria was designed to be generally adaptable to varying local requirements elsewhere. Other cities will be able to use either the full range of criteria developed here or only those sections which are considered pertinent.

Basically, clearly recognizable criteria have been arranged in major groupings relating to their geographic setting. Thus, the largest and most generalized geographic unit is the city as a whole, including its relation to the metropolitan region. In descending order of size, each unit contains the next as one of its component parts. Each next smaller unit ordinarily implies greater detail of study. The geographic units are as follows:

1. City (including regional aspects)
2. Community
3. Neighborhood
4. Block
5. Lot
6. Structure
7. Dwelling Unit
8. Room

For existing industrial, commercial and other non-residential areas, "communities" and "neighborhoods" are replaced, respectively, by geographic units of corresponding size, identified as Functional Districts and Functional Areas. These will be discussed later.

For each geographic unit, "measuring" elements are to be determined which relate specifically to the size of the geographic unit under consideration.

These "measuring" elements are divided into four broad classifications:

1. Technical, referring to physical characteristics, equipment and installations located in the respective geographic units;
2. Economic, dealing with general development, production, commerce, real estate market, and business problems in the respective geographic units;
3. Social, concerning the characteristics of population which result from varying ethnic and other backgrounds, contacts with each other, and from the physical environment; and also concerning problems of community organization;
4. Environmental and Aesthetic, relating to land uses, community facilities, parks and playgrounds, environmental nuisance and danger factors, street layout, traffic and transportation, and also to the visual appearance of the respective geographic units as a whole, their architecture, site planning, landscaping, spatial relationships, etc., wherever applicable. (Discussed in detail in the report of the Architectural Consultant.)

The following are a few examples of criteria under study in Newark and of their geographic relationships.

1. The existence and the contents of, as well as adherence to, a comprehensive master plan is one element in the technical criteria for the city as a whole. It will not figure in relation to the smaller geographic units, though the latter will be affected by the existence and nature of local (community or neighborhood) plans.

Comprehensive technical criteria for housing conditions in individual structures and dwelling units were derived mainly, but not exclusively, from the American Public Health Association appraisal method for measuring the quality of housing.*

For Structures:

Main access--each structure should have a means of egress and access to a public street, so that persons living in or visiting the structure can have a clearly defined path of travel with undue obstruction or hardship;

* An Appraisal Method for Measuring the Quality of Housing: A Yardstick for Health Officers, Housing Officials and Planners. New York: American Public Health Association Committee on the Hygiene of Housing, 1946, 4 vols.

Fire escapes--are essential in multi-storied non-fireproof buildings (if sufficient stairways are not available) in order to facilitate the egress of occupants and often to comply with protective codes that require dual means of egress from multi-storied buildings. However, elsewhere in this report an aesthetic penalty for certain fire escapes is discussed;

Public hall lighting--should be adequate at all times;

Water supply--should be derived from a public distribution system serving the community at large and be for the use of the occupants of all dwelling units in the structure;

Sewers--part or all of the sanitary waste lines of the structure from toilets, sinks, laundry tubs, shower stalls and bathtubs should discharge into a public sewerage system or a private system which is safe and adequate;

Daylight obstruction--there should be no excessive blocking of normal daylight by adjacent structures. This may include varying degrees of obstruction but is considered only on that side of the structure which has windows;

Building Coverage--The percentage of a lot which is occupied by a structure should be subject to control, so that it does not unduly reduce the open area available for recreation and other uses;

Plumbing--There should be no leakage or obstruction in waste pipes, causing staining or erosion of walls and ceilings, or stoppage of normal drainage. Low pressure in water pipes may be the result of mineral deposits in the pipes or excessive demand upon supply line;

Heating--All rooms of a one to four room unit should have installed heat. This may include a flue connected stove, radiator, furnace register or other safe and permanent heating device. In units having five or more rooms, some rooms may be without installed heaters, although it is preferable to have them.

For Dwelling Units:

Kitchen facilities--should be within the dwelling unit or accessible to it. These facilities should include installed appliances, a refrigerator, a stove with a built-in oven and a sink with piped water and drainage to carry waste water away from the structure;

Toilet--should be located within the dwelling unit, where occupants can enter without going outdoors or through areas occupied by other occupants. It should have a door to insure privacy, suitable lighting, and a window or other ventilation. Toilet should be in proper working order, with no signs of stoppage, leakage cracks or other defects;

Bath--there should be an installed tub or shower within the dwelling unit or available by means of public corridor to occupants of several dwelling units. Installations should be piped for hot and cold water all year around;

Water supply--piped cold water and under most conditions, also hot water should be available to meet bath, cooking and washing needs;

Washing facilities--there should be at least one installed wash basin per unit, with piped cold water. Usually located in the bath or toilet compartment, it may, however, be located in any room. Occupants should have an installed laundry tub in the dwelling unit or accessible on the premises. The tub should be installed with at least piped cold water and sewerage connection;

Dual Egress--the dwelling unit, similarly to the structure as a whole, should be provided with two separate safe means of reaching ground level outdoors in time of emergency or fire;

Electric Lighting--the dwelling unit should contain adequate installed wiring and electrical outlets for the use of the occupants;

Central Heating--it is desirable, particularly in Newark and other northern cities, that there should be a system which delivers heat through permanently installed pipes, ducts, conduits, etc., to habitable rooms from a source outside these rooms;

Rooms Lacking Windows--a windowless room is recognized as one of the fundamental defects in housing. It prevents light and air from entering and contributes to an unhealthy physical and psychological environment;

Overcrowding--occurs when the number of rooms or the physical area in the rooms is not sufficient to provide privacy or space for ordinary activities. As recognized by the U. S. Census of Housing, overcrowding occurs when there is occupancy per room in excess of 1.5 persons. The sleeping area per person should be at least 40 square feet per person.

Doubling of basic families in a single unit may lead to overcrowding, lack of essential privacy, and undue strain upon plumbing and other facilities of the unit.

Another group of technical criteria are the following characteristics of structures, derived mainly from the Newark real property appraisal survey:

Construction Age--The number of years from the time of the original construction to the present;

Effective Age--The actual age modified by the equivalent of alterations, additions or modernization. These may include improvement of external architectural design, interior partition arrangement, interior trim, heating, plumbing or wiring. Proper judgment must be exercised in estimating how much the initial age of a building has been "reduced", since it is not necessarily indicated by the cost of modernization;

Obsolescence--indicates the reduction of the utility of location, resulting in so-called over or under-improvement, changed neighborhood conditions arising from changes in land use, population and business shifts, or it may be due to a lessened demand for certain building types caused by technological advance or changed economic conditions;

Depreciation--loss in "value" from all causes from the date of construction. This may be physical loss caused through wear, aging and the effects of the elements, or it may be economic loss caused by an excess of supply over demand or loss in desirability and use for specific classes of property.

Certain other technical elements, such as fire safety, can be used in relation to all geographic units. The city as a whole should have adequate code regulations to prevent or minimize fire hazards. The individual community should have adequate fire-fighting facilities to service its component neighborhoods, which in turn should be planned to assure easy access of fire-fighting equipment wherever needed. The blocks and lots should not contain fire hazards in the way of structural use or physical obstruction of fire-fighting equipment. The block should also be adequately serviced by fire hydrants and water mains. Structures should be built of fire-resisting materials and have adequate means of egress from the interior and upper stories. Dwelling units should be planned for safe egress in case of fires, as should individual sleeping rooms.

2. Economic criteria may be derived from such items as income levels, rent levels, home price categories, the percentage of families on relief, retail sales, etc.

An important aspect of the economic criteria is the real estate market conditions. Various elements of this market will be listed. For example: Type of ownership; place of residence of owners; rental operating income; gross rent multipliers; frequency of conveyance; duration of ownership; comparative tax assessments; trends in property prices; number of mortgages as related to transactions; the operation of the mortgage financing market; etc.

These different market conditions indicate varying degrees of instability of the area under study, both as related to the physical and the demographic point of view. Frequent deed transfers may indicate that a neighborhood is no longer stable but involved in a transaction which is ordinarily downward. In established residential areas deed transfers may mean that home owners are selling out either to people who invest speculatively or to people who comprise a new social group in the area. Similarly, transitional or blighted communities are not considered safe risks for mortgage financing by banks and lending institutions because of uncertain returns on investments.

Rentals of dwelling units are another element in the economic criteria. Studies have indicated that conversions of large dwelling units into several smaller ones, otherwise undesirable, result in increased income for the landlord. Although the rentals may be low in dollars, the cost in terms of living space and amenities is high when compared with standard housing.

3. Social criteria of renewal treatment are perhaps most difficult to specify and apply, as there are wide differences of opinion, often of the "chicken-and-egg" type. Is social deterioration the cause or the result (or a symptom) of physical and economic blight, or is it a combination of both? This study will not attempt to answer such sociological questions, but it will take advantage of certain limited but objective observations in the field of social relations and community organization.

The incidence and location of crime, felony, juvenile delinquency, vandalism; the intensity of racial and religious tensions; the degree of organized social and public activity; the evident care of residents for the appearance of the street and the neighborhood and similar observations on the community and city-wide level will serve as additional criteria.

4. Environmental and Aesthetic Criteria are of many different types, positive and negative, some of which follow:

Rooming houses--containing or intended to contain whole family units. Such units with their concomitant overcrowding of people and facilities are usually associated with blighted areas and by their presence contribute to blight and social problems;

Street Traffic--there is a considerable amount of nuisance and danger connected with street traffic. Depending upon traffic character, width of road pavement and distance of structures from the roadway there are elements of noise, noxious fumes and hazard to pedestrians;

Nuisance from Railroad--these facilities may be blighting where structures are so close that they get large amounts of noise and vibration or smoke. This would normally include block frontages within 1000 feet of railway tracks or yards and blocks which are bisected by tracks. The amount of rail activity and the fuel used as well as the kind of track (elevated, depressed, grade) determine the extent of the blighting factor;

Elevated Highways--cut off light from adjacent frontage and introduce an additional element of traffic noise, fumes and dirt, as well as serve as area barriers;

Airports--depending upon size, type and frequency and type of service, contribute to noise and danger. This is especially true of blocks within take-off and approach zones;

Density--population density is an important factor in land crowding. Where densities are high, lack of needed open space is indicated, and crowding of structures with overloading of public and private facilities is most often evident;

Proximity to parks and playgrounds--easy access to and distance from suitable recreational areas is essential for all residential areas. The section of this report dealing with recreation contains an extensive discussion of standards for such facilities;

While several other environmental criteria and all aesthetic criteria will be discussed later in this chapter, in the report of the Architectural Consultant, there is an important group of environmental criteria which should be discussed here. These are the major "measuring" elements of a more general nature:

- a. Suitability of the general area for continuation in its present use or for conversion to another higher and better use in view of changing land market conditions.

The guiding objective, usually set forth in the city plan, in planning an urban renewal program is that blighted areas be rebuilt and declining areas rehabilitated so that all land is employed in its best social and economic use. This means that land used for one purpose must be free to be redeveloped to other uses if this is deemed to be in the best interest of the community. Such areas selected for rehabilitation or clearance and redevelopment should be relatively free from likelihood of another change in the future.

The areas selected for redevelopment should be either those where a private redeveloper, with adequate financial resources, has indicated a willingness to handle the redevelopment; or where the potential advantages of the area, after clearance, would be so great that they could be expected to attract competing redevelopers.

- b. The degree to which it can be determined that rehabilitation will not obstruct, or that it may positively encourage ultimate redevelopment in accordance with highest and best land use.

There is the declining area that may be fairly sound insofar as it is well located, served by good transportation, and has a predominance of well-built structures and a layout that is amenable to redesign or modernization. This is the type of declining area that is worthy of substantial expenditures for rehabilitation measures with the thought in mind that the neighborhood may become stabilized and its life substantially extended. This may be called the "comeback area."

On the other hand, there is the declining area that is approaching the point of being an actual slum; an area that is marked by a low standard of construction, perhaps excessive ground coverage by building, by a basically unsound layout, and by little natural market attraction. Such an area may be identified as one in which no amount of major rehabilitation-type expenditure will be effective over the long run, a "hopeless area". The area's real future is one of ultimate clearance and large-scale rebuilding.

For this latter type of area the only real technique for treatment short of outright clearance is a strenuous program

of enforcement of minimum housing standards. This kind of action is widely regarded as a means of "holding the line" in those areas that seem to be headed for complete rebuilding but that may for a variety of reasons be low priority in the clearance programs

- c. Feasibility of removing existing neighborhood features such as non-conforming uses, individual dilapidated structures, etc., which presently retard sound rehabilitation measures or make clearance necessary.

In older cities such as Newark where, prior to zoning, non-residential uses have developed in residential areas not so deteriorated as to require full redevelopment, careful judgement must be made before these uses are attacked simply because they are "non-conforming". Frequently such uses may be found after careful application of standards of performance, not to be substantial contributors to the decline of livability in the neighborhood in which they are located.

- d. Effect of redevelopment or rehabilitation on the city's financial situation.

It is obviously an important function of renewal planning to see to it that the plans are aimed at supporting and enhancing the desirability of real property. Any loss in the desirability of a community as a location for a residence, is critical, as is any loss in corresponding attractiveness to industry, or a decline in desirability of shopping centers resulting in the construction of new shopping centers outside the community which capture its former business. Even the smallest of such losses represents the first slip toward community bankruptcy. Many communities are facing bankruptcy today as a direct result of loss in community desirability and a consequent proportionate decrease in the over-all tax base. Renewal planning activities must be directed toward making the community a more desirable place for residents and industry and toward making its shopping areas so attractive and adequate that business does not go elsewhere.

e. Environmental industrial and commercial problems.

Industry and commerce are important to the community not only because they furnish the jobs that make it possible for people to live there, but also because they pay a good part of the public bill. Improvement of the economic base of the city is met largely through industrial or commercial projects. It might, for instance, be an objective in the clearance of dilapidated housing from industrial areas to provide land for expansion and to permit greater efficiency for remaining industries as well as for the attraction of new plants. Or projects in this category might involve the rehabilitation of major shopping centers or downtown districts, including both the redevelopment of blighted sections and conservation of existing assets.

f. Presence or absence of public improvements necessary to insure sound rehabilitation or redevelopment.

Areas selected for redevelopment or rehabilitation should be those in which adequate public services are in existence, or will definitely be provided for in the future.

g. Probable difficulties of relocation likely to result from rehabilitation or redevelopment.

Since families are almost invariably displaced to some extent in rehabilitation, as well as in large-scale redevelopment, the objective is to facilitate their rehousing in "decent, safe and sanitary accommodations". This requires consideration of the conditions prevailing in the local housing market, analysis of any need for special private or public construction activity, and, in a growing number of areas, special attention to the problems involved in the rehousing of low-income people who should be relocated in public housing.

h. Degree of probable marketability of a sound land re-use area.

Vacant or largely vacant and cleared areas selected for redevelopment should be supportable on the grounds that the use of redevelopment powers is the only way, or the cheapest way, of accomplishing the proper development of the land; and that this development should occur, for the financial benefit of the city, on the redevelopment site rather than somewhere else.

Areas selected for residential redevelopment should be either those where a private redeveloper, with adequate financial resources, has indicated a willingness to handle the redevelopment; or where the potential advantages of the area, after clearance, would be so great that they could be expected to attract competing redevelopers.

i. Finally, one or a combination of the following environmental criteria:

-Technological and other changes which at one time or another are likely to render structures or neighborhood facilities obsolete prior to the end of the ten year period, e.g. increased parking requirements, loading requirements, etc., or a change in family requirements due to alteration of family composition;

-Lack of alert community leadership;

-Threatened additional intrusion of mixed land uses;

-Lack of adequate land use controls in neighboring municipalities;

-Increasing use of service streets for through traffic;

-Lack of an adequate system of community facilities such as schools, utilities, street improvements, parks or recreation areas, refuse disposal, shopping facilities, etc;

-Rapid movements of out-migration or in-migration within an area;

-Taxation policies which do not encourage proper maintenance or new construction.

-Proximity to employment centers. It is desirable that the distance in travel time should not, in most cases, exceed 30 minutes from the house to the place of business.

Evaluation

By evaluating these and many other prerequisites for acceptable housing, it will be possible to decide, on the basis of need and potential for improvement, which structures or groups of structures should be conserved, rehabilitated or redeveloped.

As noted elsewhere in this report, for each component element of the above criteria, a value judgment has been or will be determined--either in the form of numerical penalties or otherwise--so as not to attach equal emphasis to every aspect under consideration. It is obvious that otherwise such items as the destruction of trees and foliage on the streets may appear to carry an equal weight with overcrowding of dwelling units or the lack of proper plumbing facilities, and the general picture of blight would be distorted.

At the present stage of the project it is advisable to explore all aspects of these problems to the maximum potential and to present their complete organizational relevance. The knowledge to be gained by this method may offer a substantial contribution to the field of urban renewal. It is expected that further studies will make it feasible to transform the general criteria findings into an equally precise but technically more workable instrument.

B. NON-RESIDENTIAL AREAS

1. Introduction.

The identification and evaluation of blighted non-residential structures and areas in Newark is as important as the determination of residential blight. Because of its excellent transportation facilities and favorable geographic location, Newark has become an important industrial and commercial center, and consequently has become dependent upon these sectors of its economy. However, many plants and commercial establishments are either deteriorated or obsolescent, and it has become necessary for the city to help rebuild and conserve its industrial and commercial resources as well as its residential facilities.

As it is at present an accepted planning practice to determine those residential structures which do not meet minimum standards of health and safety and which are in neighborhoods deemed inadequate in terms of circulation and community facilities, so also is it becoming increasingly necessary to identify and analyze those non-residential structures which, because of deterioration of structures, changing technology, and needs of industry and commerce, can no longer be considered adequate. Changes in methods of production and distribution, greater dependence upon highway transportation, coupled with deterioration and obsolescence of existing plants, have contributed to the inadequacy of non-residential structures and areas.

In specifying the criteria that are to be utilized in delineating non-residential renewal areas in Newark, an additional goal of this project will be further development of the study of non-residential blight and its causes, symptoms and problems, along with methods for determining appropriate non-residential renewal treatment.

2. Previous studies of non-residential blight.

Intensive studies on non-residential blight have been previously conducted in Detroit and St. Louis.* The conclusions of these two studies will form a considerable basis for criteria applied in the Newark project.

a. St. Louis Study

The St. Louis study utilized six broad categories of criteria: building features, building appurtenances, building condition, building occupancy, site features, and environmental features.

Building features and building appurtenances were connected with the following conditions: access on public streets, type of construction, age of structure, base floor area, dirt floors, overloading of floors, inadequate column spacing, inadequate ceiling heights, inadequate means of egress, lack of fire escapes and fire protection devices, lack of central heating, lack of elevators in multi-story structures, inadequate design of elevators, lack of a safe water supply, lack of proper sewage disposal facilities, lack of natural gas facilities and inadequate electrical wiring. Building condition criteria evaluated general maintenance, rodent infestation, and poor condition and maintenance of utilities. Building occupancy evaluated uses differing sharply from intended use, existence of nuisances, insufficient sanitary facilities, fire hazards, non-conforming zoning uses or non-conformity to land use plan, and lack of flexibility for conversion.

Site features evaluated excessively small or poorly shaped lots, inappropriate topography, inadequate rail facilities, insufficient traffic lanes, inadequate or deteriorated street paving, lack of curbs and gutters, inadequate street lighting, no sidewalk or sidewalk in poor condition, lack of public transit or major traffic artery within 1000 feet, lack of public water supply and sanitary sewage system, and high degree of mixed land uses. The environmental category included a vitality index which considered desirability of the area for type of use, trends in new construction or improvement, vacancy ratio and number of firms requiring more floor space or land.

b. Detroit Study

The Detroit study established three basic categories of criteria: Physical condition, environmental factors, and economic factors.

* Industrial Renewal, Detroit City Plan Commission, Detroit, Michigan, March, 1956.

Measuring Deterioration in Commercial and Industrial Areas, City Plan Commission of St. Louis, St. Louis, Mo., 1957.

Physical condition evaluated type of construction, number of stories, age of structure, inside and outside physical maintenance of structure and non-conformity to building, health, and fire codes. Environmental criteria considered the adequacy of public services, off-street parking and loading, streets; and harbor, docking, rail and truck facilities; nuisance elements originating within or without the site, topography, overcrowding of buildings on land, mixture of inharmonious land uses, building uses in violation of zoning ordinance or master plan, poor housekeeping, high crime or delinquency rate in area, lack of adequate living facilities for employees within convenient traveling distance, lack of recreation space and facilities for workers on off-time, and poor relations with people in the neighborhood.

Economic criteria consisted of indices of vacancy, decline in property value greater than average building of same type, high incidence of tax delinquency, actual utilization inferior to original construction use, absence of new construction in area if land is available, building obsolete and not adaptable to modern operation and poor location in relation to customers and supplies. After field testing, the economic criteria, other than existence of vacant structures, were eliminated.

It appears that the development and use of criteria in Detroit and St. Louis have certain limitations for application in Newark. Both the St. Louis and Detroit studies utilized field surveys, where only a portion of non-residential structures were surveyed. St. Louis conducted a special Demonstration Project, the sole purpose of which was to do further research on non-residential deterioration; but only certain St. Louis' industrial areas were selected for structure-by-structure review. The Detroit study did not consider commercial facilities in its field survey, and analyzed only industrial structures in existing industrial concentrations. Both studies failed to consider deteriorated structures in residential areas, and how they should be incorporated in an urban renewal analysis of predominantly residential areas.

3. Proposed Procedure for Newark.

An analysis of the property appraisal records will be useful in developing non-residential renewal criteria for Newark. Much of the same basic information obtained from assessor's records for residential structures can be obtained also for non-residential structures. However, for commercial and industrial property, additional information on economic and functional obsolescence is available. Theoretically, this obsolescence evaluation relates the given type of structure and construction to the economic trends which affect the particular use.

Similarly to the residential scheme, the entire system of non-residential criteria will be related to geographic units, as follows:

- a. City (including regional aspects)
- b. Functional District
- c. Functional Area

- d. Block
- e. Lot
- f. Structure

(Not all data can be applied to every geographic unit.)

It is proposed that three categories of criteria be utilized: Structural or technical conditions, environmental conditions and economic factors.

a. Structural or technical conditions

- (1) Depreciation--As indicated in the description of the appraisal system, the depreciation percentage evaluation incorporates a series of structural and maintenance characteristics:

-effective age of structure, which is the actual age adjusted downward for alterations, additions and modernization;

-quality of construction - good, average, fair or low grade;

-current maintenance in terms of condition;

-type of structure: store, office, theater, industrial, etc.

- (2) Obsolescence--The adequacy of a building for modern production, distribution or service is calculated as an obsolescence percentage. The obsolescence percentage varies by type of structure. Stores are considered obsolescent if three stories or more in height and lacking elevator service. Theater buildings are considered obsolescent as such, the degree varying with type of construction (this evaluation is based on the belief of a general depression in the industry caused by competition from television and drive-in theaters.) Office buildings over four stories in height are considered obsolescent when the following conditions exist: Inadequate elevator facilities, poor functional layout, comparatively poor business location, lack of modern office facilities which are available in other buildings, poor transportation facilities, and inadequate parking. Combination stores and offices of from three to eight stories in the downtown district are considered obsolescent where there is an income loss because some or all of the upper floors are not economically rentable, usually with less than 2,500 square feet of ground area. Industrial buildings are considered obsolescent as such, due to an oversupply of vacant or semi-vacant multi-storied buildings which are not adaptable to modern industrial use. In determining the degree of obsolescence the number of stories,

type of building construction, age, and ground floor area are considered. One-story industrial buildings are considered obsolescent only when evidence is available that the building is functionally obsolete and incapable of conversion to other uses.

(Many of the criteria utilized in the more detailed studies of Detroit and St. Louis are incorporated in the depreciation and obsolescence percentages of the property appraisal system)

- b. Economic--Theoretically, a great deal of the economic analysis would be completed in the formulation of the city's comprehensive or master plan, which would deal with the economic vitality of all non-residential areas and assess their future growth in relation to the total city needs and goals.

Newark is deficient in this respect, and it is proposed that the renewal study consider the following economic criteria, among others:

- (1) conformity to the economic contents of the Master Plan (as Newark's Master Plan was formulated in 1947 and will be revised, additional criteria may be considered as they are included in the plan);
 - (2) encouragement of growth and better distribution of employment centers;
 - (3) availability, cost, and actual use of public transportation and arterial roads;
 - (4) need for commercial or institutional development to serve existing or future residential areas;
 - (5) access from a large trade or industrial area by existing or proposed arterial roads and major streets or by public transportation, where necessary;
 - (6) recent new non-residential construction indicating a trend toward continuation or expansion of such use;
 - (7) incidence of vacant non-residential structures.
- c. Environmental--An index of environmental blight, as well as positive criteria, will be drawn from the following factors, among others:
 - (1) present predominance of non-residential use in a long established land pattern;
 - (2) impossibility of development as a satisfactory residential area, due to inadequate size, physical separation from residential neighborhoods, proximity to major nuisance sources (airports, railroads, etc.), and other reasons;

- (3) desirability of reorganization and replanning of non-residential activities in more compact and better serviced areas, in order to enable more efficient production flow and to minimize peripheral friction with adjacent or surrounding residential areas;
- (4) recognition of existing or desirable commercial and industrial linkages to existing facilities, and of existing or desirable services for such facilities;
- (5) suitability of topography and soil conditions;
- (6) availability of adequate off-street parking and loading facilities, as required for the activity under question;
- (7) incidence of detrimental mixed land use;
- (8) overcrowding of buildings on land;
- (9) inadequacy of basic public utilities (water, sewers, paved streets, public transportation, etc.);
- (10) inefficient street layout and widths and inefficient traffic pattern.

4. Conclusion.

The next steps in the formulation of non-residential criteria and the delineation of non-residential renewal areas will be:

- a. Field testing of structural and site condition criteria to determine the significance of deterioration and obsolescence percentages as indices of blight;
- b. Refinement of environmental and economic criteria;
- c. Development of penalty scores and determination of levels for clearance, rehabilitation and conservation, with further field testing;
- d. Refinement of penalty score system and delineation of renewal areas.

C. ENVIRONMENTAL AND AESTHETIC SURVEY
Interim Report by the Architectural Consultant

1. Introduction

The area of activity and research assigned to the Architectural Consultant includes the following:

- a. To explore the development of physical design techniques which will serve as standards in promoting conservation and rehabilitation of typical structures;
- b. To indicate possible employment of vacant properties (whether of public or private ownership) for the purpose of conservation or rehabilitation;
- c. To chart the possible enhancement of neighborhoods through reorganization of traffic procedures, controls and re-direction or channelization;
- d. To explore the utilization of unnecessary street areas for recreation, or parking, or loading space;
- e. To recommend and indicate the design of protective park areas, landscaped buffer zones, and greenways;
- f. To propose street closures where the results suggest improvement of present conditions or will help to conserve good areas;
- g. To suggest techniques for utilizing "anchor" features of neighborhoods which can promote a functional and aesthetically enjoyable solution to the physical conditions of the area.

In approaching these assignments, it became obvious that an environmental and aesthetic survey of various areas is necessary to the investigation and solution of the different proposals. A study and evaluation of buildings and areas on the basis of aesthetics is a highly controversial subject. Attempts have been made in the revised zoning ordinances of several communities; and the degree of success has been sufficiently marked to indicate the value of this approach. The legal aspects of aesthetic control are taken up elsewhere in this report; but it should be noted here that several recent court decisions have favored the principle of public right in the matter of general aesthetic control as against unbridled private freedom which does not recognize a sense of responsibility to contribute to or maintain the visual pleasantness of a community.

2. Statement of the Problem

It is well known that blight is not always visible to the pedestrian or motorist. It may be harbored within the confines of pleasantly designed and structurally sound exterior walls; or it may be hidden within the areas of rear yards, alleys, or courts. However, when rust of obsolescence and of abandonment has eaten through to the exterior, the unfortunate results are now visible and offend even the

casual witness. And this offense is an affront to the human appreciation of and need for aesthetic order, harmony and balance. Without a harmonious receptivity on the part of man for this sense of order or beauty, any exterior condition would be acceptable; and the recognition of blight might be said to occur only if the structural elements of an edifice were damaged.

Yet environmental blight may exist where structures are sound, but are inharmoniously clothed, or stripped of the modesty of architectural dress. The steel column of a tower, deprived of encasing marble or stone is not pleasant (unless the design anticipated a statement of pure and stark delineation); and if the missing surface had contributed essentially to the original design, the image we behold is that of early blight. It would appear then, that blight is closely attached to aesthetic appearance and by multiplication of component parts--to that of a neighborhood and community.

If we set aside, for the moment, the reasons or forces which impel actions or lack of action resulting in the decay or blight, then it can be said that we receive a primary appreciation of this cancerous condition through "sight". If the visual impression evokes no comment, criticism, objection, or revulsion, then it can be reasoned that an aesthetic receptivity is absent. If the image evokes any reaction, then this primary appreciation can be said to be related to a human receptivity to aesthetic values. It can be concluded that through the sense of sight, physical conditions of a structure or series of structures, or of an area, transmit impressions which tend to influence our comfort or discomfort. Therefore, it should be possible to add to the methods of grading neighborhoods, an aesthetic evaluation.

It is in this area of possibility that the architectural consultant has conducted a study and reports his findings.

3. Environmental and Aesthetic Evaluation

a. Influencing Factors

The environmental and aesthetic evaluation of city blocks is affected by many factors, several of which are not completely architectural in origin or employment, but which do render the visible appreciation of an area the better or the worse for their existence.

It is even possible to classify these pertinent factors in areas of control or realms of causation. If it is apparent that several of these elements may be found duplicated under other divisions of the total scoring method, it should be remembered that these are included here because of "visual" impact; and allowances must be made in the overall tabulations of scores for any section of the city. These areas of classification are:

Public & Quasi-Public Domain
The Street
Utilities
Traffic & Parking

Land Use and Zoning
Community Facilities
Vacant Properties

Private Domain
Building Conditions
Property Conditions

Such external influences as sound, odor, heat, etc., as they are not "visible", remain subject to further investigation.

b. Further Development of Influencing Factors

The Street

- (1) Street plan
- (2) Street width
- (3) Street surfacing
- (4) Street lighting
- (5) Street sanitation
- (6) Street landscaping

Utilities

- (7) Power line poles

Traffic & Parking

- (8) Automotive traffic density
- (9) Other types of traffic
- (10) Traffic signs
- (11) Street parking
- (12) Off-street public parking

Land Use and Zoning

- (13) Non-conforming uses (zoning)
- (14) Mixed uses
- (15) Building types
- (16) Building heights
- (17) Set-back line
- (18) Land coverage

Community Facilities (proximity, location, etc.)

- (19) Schools
- (20) Religious buildings
- (21) Parks
- (22) Recreational facilities
- (23) Civic or welfare buildings

Vacant Properties

- (24) Vacant Land

Building Conditions

- (25) Environmental consistency of architectural design
- (26) Individual integrity of architectural design
- (27) Structural condition (external)
- (28) Painting condition (external)
- (29) Building elements influencing aesthetics
- (30) Environmental color harmony
- (31) Abandoned buildings

Property Conditions

- (32) Landscaping extent
- (33) Landscaping condition
- (34) Walks, paths, roads
- (35) Sanitation
- (36) Private parking facilities

4. Scoring: a Method and a Philosophy

Penalties scored against street frontages shall vary from "0" (representing the best environmental or aesthetic visual image) to "10" (representing the least satisfactory reflection). The actual evaluation will, of course, be influenced by somewhat subjective reasonings. To set exact criteria against which to measure the proposed evaluation in the field is difficult; and yet the mature planning and architectural judgment will neither condemn as blighted a structure or area for having maintained a "romantic" value which may be devoid of the purity of an established style (i.e. to the French Quarter of New Orleans, or Montmartre in Paris), nor penalize the existence of repeated eclectic recollection (if harmoniously employed). On the other hand, neither will the reasoned survey avoid noting a penalty where designs of experimental form contrast violently with an environmental atmosphere of relaxed tradition.

It is also to be noted that a new structure will not add measurably to the low score of an area if its aesthetic appeal is lower than that of its older neighbor. Newness will not be a substitute for beauty. The "different" is not to be accepted as high art on the basis that it is an expression of this new day, or modern technology, whether this characteristic be found in the color employed on a building, or in the design of its structural shape, or in the disposition of elements on a site where several structures are involved. The test of its low scoring qualities shall be similar to accepted criteria for all aesthetic appreciation: does it accomplish its task; express its purpose; delight the eye, mind or spirit; contribute harmony to the site and area even as it reflects the civilization which produced it?

The award of penalties will show understanding for the achievements and acceptances of past generations; will evidence appreciation of attempts to contribute beauty through judicious experiment with new forms, materials, and color; and will demonstrate an educated reception of the human right to expect in the design of their dwellings, warmth, repose and sanctuary; - in their places of government and of communal intercourse, an aesthetic of dignity, stability and confidence; - in their places of worship, security, inspiration, and a magnetism of welcome and hope; - in their places of commerce, an excitement of pattern and color...perhaps even a sense of daring...

On these precepts the scoring should take place; and while it must be admitted that such a dictum betrays the existence of an underlying philosophy, perhaps this concession to judgment criteria is not unwelcome. A measuring method based on restrictive dogma or on colorless apathy will not produce an honest or valuable reflection of the environmental condition.

5. Descriptive Explanation for Scoring of Factors

(1) Street Plan

Plan patterns of streets may affect visual aesthetics. A street too small in length, or excessively steep in grade, or with excessively acute corners at intersections, or if unreasonably tortuous (within commercial areas, for instance) will merit a penalty score of "1", "2" or "3", as the case may suggest. Where no vexing plan problem exists, the street plan will be scored "0".

(2) Street Width

The width of streets, in this automotive age can affect the aesthetic reaction. The narrow by-way, restricting the sense of space, and causing a tight pyramiding of visual images, cannot vie with the sense of grandeur received from a view along a broad avenue. Scoring has been based on car lane widths of about eight or nine feet in dimension. A street having a width suitable to receive 8 lanes (or more), including any parking lane, (or a dimension of 80 feet or more) shall receive a score of "0". A street of 6 lanes or an approximate dimension of 50 feet, shall receive a penalty score of "1". For a street of 4 lanes, assign a penalty score of "2". For a street of 3 lanes or less, assign a penalty of "4".

(3) Street Surfacing

The condition of a roadway not only affects aesthetic appreciation, but may influence respect (or the lack of it) for neighborhood sanitation through psychological reaction. Where pavements are smooth, generally free of ruts, corrugations, holes, cracks; or have had these defects repaired, score "0". Where pavements have minor cracks, a few ruts, score "1". Where pavements have unrepaired holes, ruts, cracks, score ranges between "3" and "7".

Pavements of brick or stone, if in good condition, score "0". If such pavements are worn, rutted, or have blocks missing, the score will, of course, rise to any numeral up to "7". Streets without curb stones will score "3". Streets covered with broken stone or gravel will score "6" to "7". Streets covered with a mixture of surfacing materials, if in good shape, will score "4". Unpaved streets will score "10".

(4) Street Lighting

The character of street lighting devices can add to safety and to the pleasant aspect of the area by its presence, by its type of support, by its design, etc.

Where large wood poles are used to support street lighting, the penalty score will be "2". Where metal poles are used to

support lighting, the score will be "1". Where the design of these supporting standards or poles are in harmony with their surrounding, and scaled accordingly, the score will be "0".

(5) Street Sanitation

This section scores the condition of street sanitation (as distinguished from the sanitation practices upon and within a private property). It is not intended to score this section in any way that may differentiate between cause of dirt and garbage, whether caused by lack of city services or by habits of the area inhabitants or transients.

If streets are generally clear of litter, the score will be "0". Penalty scores will range from "1" for occasional litter such as may be accidentally left by faulty garbage collection, to "10" for unreasoned, wanton disposal of debris, cans, cartons, papers, etc. into the streets.

Where parked cars line both curbs and seemingly render proper street cleaning difficult or impossible, the penalty score should be lowered by 1 or 2 points. (subject to further investigation).

(6) Street Landscaping

Trees, sidewalk greenery, landscaped islands in the centers of streets, contribute much to the aesthetic atmosphere.

If such an island is pleasantly landscaped, if trees line the street reasonably well, if grass strips exist between the sidewalk and curb, the score will be "0". The fact that traffic may be impeded by the island device is not a cause for penalty here. If in the above description, the island is not well landscaped, or if the trees are small or sparsely located, the score will be "1". If no island is present, but the other factors of trees and greenery exist, the score will be "2".

If trees are present, but no grass areas line the curbs, the score will be "3" or "4", depending on the frequency or condition of the trees. If no trees exist (or shrubs), but grass lines the curbs, the score will be "5". If the sidewalks are devoid of landscaping, the score may be as high as "7". If landscaped areas are poorly maintained, the penalty will be increased by 1.

(7) Power Line Poles

This factor includes telephone poles, ordinary power line poles, or street lighting power poles.

Streets where power lines are underground, and telephone lines are also not visible, merit a score of "0". Existence of poles for power or telephone lines invites a score of "1" or "2" depending upon their frequency, or weight of wires. Where poles also carry elevated transformers of notable size, the penalty will be increased by 2 points. Where poles are wood the penalty will increase by 1 point.

(8) Automotive Traffic Density

The flow of traffic through a street affects the pictorial image. If vehicular passage is light, occasional, whether passenger, or that coupled with light delivery units, the score will be "0". If the traffic is rather constant, and is largely passenger and light delivery (as on a through street) the penalty score will be "1" or "2". If traffic consists of a continuous and constant flow of passenger vehicles and such units as busses and heavy trucks, the score will be "3" or "4".

It may be said that in addition to technical problems, traffic tends to obscure the aesthetic appreciation, and care should be taken to relate, if possible, the flow of traffic to street width. A narrow street with excessive traffic may well be considered light or medium traffic density on a wide boulevard.

(9) Other Types of Traffic

With regard to the proximity of built up areas to thruways, parkways, elevated expressways, or to railroads, the scoring will reflect the manner in which the view of the traffic artery is controlled by space or by landscaping. Where the encroachment is close, and not controlled, the score will mirror the situation.

(10) Traffic Signs

For excessive, outmoded or dilapidated traffic signs or boundary designations, the penalty score shall range from "0" in a street where a single traffic sign is present at street corners, to "1", "2" or "3" where additional signs appear within the street length between corners. Commemorative plaques or signs merit no penalty. Signs, placed along curb lines to advertise business or control parking for benefit of private owners, merit additional penalties, but this problem is subject to further investigation.

(11) Street Parking

Parking of automobiles along the curb lines of streets affect significantly an appreciation of an area. Where such parking is present for up to 50 percent of the street length, the score shall be "0".

Where such parking ranges from 50 percent up to 100 percent of the street length, the penalty shall be "2" to "3". Where parking is permitted on one side of the street only, the score will be "0" for the side vacated, and the opposite side will have its penalty reduced by 1 point, where applicable. Where parking meters are present, the penalty shall be increased by 1 point, if the occupancy of parking spaces is generally filled.

(12) Off-Street Public Parking

This facility can improve or injure the appearance of streets, depending upon the handling of the parking area. In a residential area, a public parking facility may detract (unless adroitly handled) whereas in commercial areas somewhat less attention to handling may prove acceptable.

In general, where a parking facility removes street parking, we may provide a score of "0". Where this facility and street parking exist together, and where the facility is landscaped or hidden behind buildings for the most part, a penalty score of "1" is indicated. Where the facility is fully open to view, a penalty score of "3" or "4" will be given. (In commercial areas, this factor will merit a score of "2".)

(13) Non-Conforming Uses (zoning)

The non-conforming use, most often, does not contribute to the beauty of a neighborhood. Yet when this use is carefully designed, with consideration for the neighboring buildings, provided with landscaping, allowed sufficient free land surround, it may not detract enough to warrant a penalty score. However, the degree of any negative influence will be indicated by scoring between "1" and "10", depending upon the number of such structures on the street, and upon attendant land development which may encroach upon the nature and enjoyment of the neighborhood. This entire question deserves further study due to the fact that the Newark zoning map is proposed for re-evaluation and re-design.

(14) Mixed Uses

Where the existing zoning map permits mixed uses, the lack of harmony between the designs of the structures may be the basis for judgment. For instance, where mixed uses conform to the overall pattern of design in a neighborhood, the varied uses may be otherwise sufficiently agreeable to achieve an aesthetically satisfactory reaction; and the score will be very low or "0".

If the appearance is discordant as a result of varied designs (and uses) the scoring will range from "1" to "10", depending upon the number of offenses. If the area has been re-zoned to permit a change-over to the majority of new uses, and the appearances of the new uses are acceptable, the scoring will proceed against the remaining former structures, but with reduced emphasis.

(15) Building Types

A variety of building types may arise out of former or existing zoning looseness, or because of variances, etc. Where zoning limitations have kept the types related, without inroad from non-conforming uses or mixed types, the score will remain "0". Where the types vary (i.e. apartment towers adjacent to single or two family residences) the aesthetic image suffers and the penalty score advances from "1" upward depending upon the number and proximity of the variations, as well as the amount of space between the opposing units.

(16) Building Heights

General conformity in height among buildings will often produce a pleasing image. Variations, if injudicious (or saw-toothed) in aspect, merit penalties ranging upwards from "1". However, a conscious (or accidental) design in the varying heights of a series of unrelated structures which culminates in a vista that emphasizes a single dominating edifice, will not be penalized. Likewise, a series of buildings which follow the contour of the grade and produces a somewhat similar grade against the sky, will not be penalized.

(17) Set-Back Line

Building lines which crowd structures to the sidewalk, create an appearance and environment less pleasing than that developed when buildings are set back some distance from the property lines. Therefore, when the building line or set back line is the property line itself, the penalty score will be "5"; and for each 5 feet of area between property line and set back line, the penalty will be reduced by one point.

(18) Land Coverage

The relationship between building area and land area is an obvious factor of visual influence. The structure which crowds out space to the limit of zoning regulation (or beyond, by virtue of variance approval) presents a far less acceptable situation than the building which is surrounded by adequate land and light. But, for the most part, the economics of city living rarely provides generous donation of land for the sake of aesthetics. Indeed, from the pedestrian view, land coverage is a matter of set-back and side yards. Hence, in this factor, we shall consider coverage to indicate the combination of side yard and set-back generally.

Where both set-back line and side yard lines are on the property lines, the score shall be "5". Where the set-back line is on the property line and the side yard spaces are a total of about 5 percent of the width of the property, the score will be "4". Where the side yard spaces increase an additional 5 percent, reduce the score by 1 point. As the set back and side yards approach about 25 feet from the property line, and 25 percent of the width respectively, the score will approach "0".

It should be noted that in many instances, buildings for an entire block may touch the front property line and, without side yards (as in the row-house type), still present an acceptable, although dreary, aspect. Only in rare modern-day design of first quality has the row house achieved a true sense of acceptable appearance.

(19) Schools

It would perhaps be best to grade the impact of the school on a purely technical basis. Where land is sufficient, the entire aspect will tell its story: building, artistry of design, landscaping, maintenance. Where the structure is of questionable design, or crowds upon the land, or reflects a too sombre institutional quality, the grading could be quite negative. Generally, a street which has a school would receive an affirmative "lift" and the score may be "1" or "2".

Dilapidation must be rigidly scored in accord with values on any building. If the school plant is exceptional in appearance, the score will be "0".

(20) Religious Buildings

Generally, these edifices contribute handsomely to the visual enjoyment, and merit a score of "0" because of their presence; but additional note shall be made of individual design merit. The "store-front church" does not merit "0". Dilapidation will suggest higher penalties.

(21) Parks

Oases of greenery contribute handsomely to the neighborhood appeal and the presence of park lands, even if minor in nature, should merit "0" in the scoring. The absence of such areas should receive "3" to aid in total tabulations.

(22) Recreational Facilities

Playgrounds, "tot" lots, basketball courts, and other related open-air recreational facilities, normally provided by city governments, offer improvement to the visual reaction because of the open spaces these place between structures. Often the attendant landscaping contributes happily. Where these occur, the affirmative reaction should be noted by a score of "0". To secure equitable scoring

against streets where these facilities may not exist (in the great majority of blocks, of course), the score for absence for recreational areas will be "1".

(23) Civic or Welfare Buildings

Structures such as Boys Clubs, Community Centers, etc., when aesthetically pleasing, and on the basis of their presence, design and disposition on the property, merit a score of "0" for the block. If the facility has been placed in a converted structure whose original purpose was something else, the score will be "1". For the purpose of equitable totals in scores, all blocks not having such a facility will be scored "1".

(24) Vacant Land

Well kept vacant land may enhance measurably the visual impact. Where fences occur, landscaping is good, and sanitation practices high, the score will be "0". Where landscaping is neglected, fences missing, and litter occurs, the score will range from "1" to "3". Where the lot is used as a dumping ground, the score will range from "4" to "10" depending on conditions.

(25) Environmental Consistency of Architectural Design

This factor does not elevate streets where all buildings repeat the same architectural design, but rather welcomes a favorable score for streets in which there is consistency in the characters of design between buildings, and as regards use of the area. Hence, where the designs of the buildings are related in character, general styling, and are fitting for the area use, the score will be "0".

Where designs of some structures throw discordant notes in the harmony of visual impression, the score will rise up to "10", depending on the frequency of the offending styles or designs. (For instance, a Cape Cod Cottage sandwiched in between a series of contemporary, horizontally treated homes which boast considerable glass because of a splendid view, will merit a penalty score. Conversely, a modern structure among colonial homes will also merit a penalty if the character and detail of design avoids all relation to the silhouette or textural quality of the traditional structures).

(26) Individual Integrity of Architectural Design

The scoring of this factor requires thorough knowledge of architectural design, and an appreciation of the styles and systems of construction of past generations. Scoring will distinguish between structures which are essentially well proportioned in mass, in the relation of voids to solid

areas, in the application of ornamentation, in the execution of detail, and structures which lack the reflection or good design or which are "mongrel" in composition. Similar methods of judgment will be applied to contemporary and to new structures, with scoring ranging between "0" for well designed buildings and "10" for the worst of these.

(27) Structural Condition (external)

The physical structural condition of buildings, if poor, may seriously affect the nature of pictorial image. Apart from the design of a structure, its state of repair merits scoring. Where no repairs seem necessary, the score will be "0". Where minor repairs are indicated, such as broken glass, loose shingles, sprung siding, loose brick work, missing shutters, battered trim, broken or missing gutters, etc., the score may be "1" to "3". Where major elements are affected, such as sunken or dilapidated terraces or porches, columns out of line, roofing missing, chimneys in need of repair, foundations settled seriously, window frames rotted, siding missing, masonry destroyed, etc., the score will mount from "4" to "8". Where major damage is indicated as by fire or wind damage, the scoring will mount to the full extent of "10".

(28) Painting Condition (external)

This factor, while a relatively simple one, can add or detract seriously to the visual reception. Where the structure obviously has not been painted for some long time, the influence on the neighborhood is strong. Conversely, freshly painted buildings lend smiling, welcome faces to the street.

(29) Building Elements Influencing Aesthetics

The employment of external fire escapes on the face of buildings, while obviously provided for necessary safety reasons, add little to visual gratification. Indeed, the presence of fire escapes in their more elementary forms of steel ladders, landings, and stairways merit a high penalty score. Where no fire escape devices are visible on the face of a building, the score will be "0". Where the devices are skillfully blended into the architectural design of the building, the score will be "1", "2" or "3", depending upon the degree of coordination with the building design. Where fire escapes project from the face of the building, are an addition to, and obscure original building design, or are elementary in their form, the penalty score shall range between "4" and "10".

Other elements to be considered are television antennae, added balconies, added porches, projecting signs, roof additions, air conditioning devices, etc. The size, shape and frequency will influence the penalty score.

(30) Environmental Color Harmony

Discordant, strident color on a single structure, where buildings are quite close to one another, can be most unpleasant. On the other hand, colors which blend together, complement one another, or fill a basic color harmony scheme, can immeasurably improve a street aspect. Where this latter harmony exists, the score will be "0". Where discordant, "loud", or irritating colors which lack any harmony with the general picture exist, the score will range between "1" and "10", depending upon the number of offenses and the nature of the area. In commercial areas and in recreational areas, a certain daring or excitement should be permitted without severe penalty.

(31) Abandoned Buildings

The nature of abandonment can have an influence on the appreciation of the entire street. Any apparent abandonment merits a penalty. Where no buildings are abandoned, the score will be "0". Where abandonment is noted by careful boarding up of windows (and perhaps doorways), and if the boarding is painted, the score will be "1". Where abandonment is not so protected and where building conditions are not seriously affected, the scoring will be "2".

Where the abandoned structure has been affected, penalty scores similar to those described under structural condition will apply. The duplication of this factor's scoring in the total grading will serve to establish the fact that abandoned buildings are a more serious blight upon the neighborhood than buildings in which people must live.

(32) Landscaping Extent

The extent of landscaping possibility might be measured as a factor. Where land is available and could be landscaped, but is not (as for instance, covered with gravel, pavement or just left barren) the score might range as high as "5". Where available land is covered with an attempt at grass and simple shrubs, the score may be "1" or "2". Where the landscaping has been carefully considered with a view to enhancing property and neighborhood, or to screen necessarily unsightly areas, the score should be "0".

(33) Landscaping Condition

The purpose of this element is to grade the interest of owners in maintaining the landscaping. Such conditions can add or detract. Where landscaping is maintained in reasonable good order, the score will be "0". Where grass and foliage has been allowed to "run riot", become unkempt, overly "natural" in aspect, giving an aspect of the unkempt, run-down and almost abandoned, the scoring will range upward to "1", "2" or "3". Fences in poor condition will merit an additional penalty point.

(34) Walks, Paths, Roads

The existence and condition of these elements should be recorded. The purpose and area of employment should form part of the evaluation. Where gravel paths are harmonious to the purpose of structure and land use, no penalty is exacted. Where improperly surfaced roads exist, the penalty will rise. Roads and paths of barren earth will receive a maximum score of "5". The state of repair will be scored between "1" and "5".

(35) Sanitation

The condition of sanitation on properties will be scored similarly to the scoring of sanitation in streets, but includes the practices of the private owner as regards attendant influences. Are garbage cans left in full view; are they covered?

Where the property sanitation practices are reasonably good, the score will be "0". Where litter is allowed to accumulate, the score will advance in relation to the offense.

(36) Private Parking Facilities

For the purpose of equitable score tabulation, any street which boasts of considerable private parking facilities, such as garages, carports, driveway areas, private business parking lots which are suitably screened, etc., will merit a score of "0". Where such facilities are available to 50 percent of the structures on a street, the score will read "1". Where these facilities are at a minimum, the scoring will become "2" or "3". Where no such facilities exist, the score will be "4".

6. Comment: Street Frontage Evaluation Proposed

The foregoing study has already indicated that several factors may be combined without seriously affecting the aesthetic evaluation; and that other elements require further analysis.

A score card is being devised to reflect the method of numerically recording the penalty scores, for use in the field by architecturally trained surveyors. However, the final form will be carefully related to other statistical forms being used in the overall study. Other information being gathered as part of this project will be collated on the basis of "blocks" in order to grade the city block and thereby arrive at a rating for an entire neighborhood. The approach to environmental and aesthetic evaluation proceeds somewhat differently, for it is based on visual impact of each of two sides of a street or two individual frontages of two separate blocks. However, the information will be so recorded as to permit its use for either a statistic or visual appreciation of a street or for evaluation of an entire block of four separate frontages.

CHAPTER V: AREA DELINEATION

A. GENERAL APPROACH TO EXISTING COMMUNITIES AND NEIGHBORHOODS

As one of the important steps in the process of delineation of urban renewal treatment areas, and in undertaking community renewal re-organization, it is essential to identify the existing communities and neighborhoods within the city. Proposed future treatment areas (for clearance, rehabilitation, etc.) may not coincide with the outline of these communities and neighborhoods, or may cover portions of them, or perhaps extend beyond their respective boundaries. Nevertheless the planning of treatment areas to a considerable extent will be guided by the social, economic, administrative, and physical structure of the identified component parts of the city. Also community action programs should be based preferably on established community lines of communication.

Newark has a relatively strong neighborhood awareness and community attachment, particularly in areas of stable settlement and long-established institutions. This advantage has weakened in some other areas, where physical deterioration and population instability or excessive migration has damaged community ties and local cooperation.

However, prior to the present Demonstration Grant project, no over-all attempt has been made to outline all the existing Newark communities, their component neighborhoods, and the non-residential functional districts and areas. There have been very few attempts to show the location of such area units with their identification by name and general description.

One important contribution to the identification of Newark communities is connected with the activities of the eight Associated Community Councils, organizations working for the improvement of local conditions, which serve the following eight locations: North Newark, Roseville, Vailsburg, Central Newark, Clinton Hill, Weequahic, Dayton and Ironbound.

The Community Councils have identified the general boundaries of their physical areas of interest, and these boundaries have served as one delineation source for the purpose of the present project. (While the above boundaries were closely followed in some parts of the city, they were considerably modified in other locations).

Other sources for community and neighborhood delineation were the following:

1. Field work and land use studies by the Planning Staff;
2. Consultation with various community leaders, public officials and cultural workers;
3. U. S. Census Tracts and larger Statistical Areas;
4. Studies commissioned by the Mayor's Commission on Group Relations;
5. Other studies of data available to the Central Planning Board.

As a result of these preliminary studies, thirteen major units have been identified, including both communities and non-residential functional districts covering the entire municipal area of Newark. Within several of these units, component parts were outlined, including neighborhoods and non-residential functional areas. However, these smaller neighborhoods and functional areas were selected only where they could be readily identified at the present stage of the project. Further effort will aim at the following:

1. General review of boundaries;
2. Identification of additional neighborhoods within different communities;
3. Identification of special industrial and commercial groupings within residential communities;
4. Identification of various special project areas throughout the city;
5. Identification of "principal features" of the city, in terms of structures and areas, which may be expected not to change within the next 25 to 50 years.

B. SUMMARY FOR EACH IDENTIFIED UNIT

1. Downtown: This is the central functional district in Newark, containing the primary and secondary core of the Central Business District. Easily recognized by skyscrapers and triangular parks which border the area, this district is increasing in importance as a major office center. Downtown is now also one of the focal points of the city's redevelopment activity.
2. North Newark: This is a complex community, more readily defined by its three component neighborhoods, as follows:
 - 2A. Forest Hill: Predominantly residential in character, it is a stable neighborhood with predominantly "old families" and families of Italian origin. In addition to spacious homes, there are some well maintained apartment buildings.
 - 2B. Woodside: This section contains a variety of housing types and diverse population. Lack of east-west movement, between Woodside and Forest Hill, because of the lack of through streets between Second Avenue and Elwood Avenue, due to topographic conditions, may be a cause of the neighborhood's relative isolation.
 - 2C. Branch Brook: The commercial hub of the North Newark community. Such large institutions as Sacred Heart Cathedral and St. Lucy's Church serve the concentrated Italian population in this area. One of the city's first large middle to high income redevelopment projects presently under construction is found here.
3. Roseville: One of the stronger civic-minded communities, Roseville has a substantial commercial, institutional and residential core. Bisected by rail lines and flanked in the east by the City Subway, this community takes exceptional pride in its housing and diverse population.

- 3A. Silver Lake: This neighborhood is socially separated from the rest of its parent community, Roseville. An Italian-origin population predominates. Physically, Newark's Silver Lake area merges with the Silver Lake appendage of the town of Belleville.
4. Vailsburg: This community contains a large number of Irish families. Many public officials live there. Commercially and institutionally Vailsburg is strong. The Sacred Heart Church plays an important role as a physical feature and an institution.
 - 4A. Ivy Hill: This area is the newest residential section of the city, and is located in the westernmost part of Vailsburg. This neighborhood contains Ivy Hill Park, many single and duplex homes, and the Ivy Hill Apartments with approximately 2300 units.
 - 4B. East Vailsburg: Practically isolated by large cemeteries, the Garden State Parkway and Vailsburg Park, this area consists mainly of detached residential structures except in the vicinity of South Orange Avenue. Pabst Brewing Company and Hoffman Beverage Company have large plants there.
5. West Side: A generally deteriorating community with crowded frame structures and brick tenements. Recently a relatively heavy in-migration of Negroes has taken place.
 - 5A. Fairmount: Having a fairly stable residential core, the Fairmount neighborhood shows a preponderance of crowded detached frame structures of 2 to 6 families. West Side High School is one of the notable features.
 - 5B. Springfield Hill: Springfield Avenue, predominantly commercial, bisects the neighborhood diagonally and can be considered the city's "uptown" commercial strip. The area consists mostly of institutions, especially on 16th Avenue, and many brick and wooden tenements. A notable feature is West Side Park.
6. West Market: The community is divided by many major streets and is heterogenous physically, commercially, institutionally and socially. The area is predominantly blighted, containing a large Negro population.
7. Belmont: As the most congested section of the city and containing the city's worst slums, Belmont is now undergoing major redevelopment. There are two existing public housing projects, another under construction and one in planning. There is a high Negro density in this section which is bordered by High Street overlooking the Downtown.
8. Clinton Hill: Clinton Hill, through the active work of the inter-racial Clinton Hill Neighborhood Council, is trying to upgrade housing by adjusting to economic problems caused by the influx of Negroes since 1950. Formerly consisting of a large Jewish population, Clinton Hill is an example of a community with a major bisecting street (Clinton Avenue) as a focal spine.

9. Lincoln Park South: This is the residential appendage of Downtown. There are other uses that front on major streets and on the periphery, including industrial uses in the southern portion. Many of the once fine town houses have been converted to more intensive use since the recent influx of low-income population, including Puerto Ricans.
10. Ironbound: The Ironbound is the polyglot "melting pot" in the city. It consists of a large lower middle class population and contains a high mixture of land uses. Despite the land use situation the area is surprisingly stable and satisfactorily maintained, except at the fringes where industrial and other non-residential encroachments are heaviest. The community is bordered by rail lines, highways, and viaducts. Ferry Street is the local retail strip in this community, which contains Independence Park and St. James Church and Hospital.
- 10A. Riverbank: This section of the Ironbound community, which lies northeast of the Central Railroad, is split into pockets by the large Ballantine Brewery and other industries. It also contains Riverbank Park and two public housing projects.
- 10B. South Street: Predominantly an industrial and mixed use area, the neighborhood contains the city's smallest and oldest public housing project. Land use changes from residential to non-residential south of Chestnut Street.
11. Weequahic: This is one of the finest residential communities in the city. Several retail and commercial sections serve the large Jewish population. Also contained in the area are the Beth Isreal Hospital, other Jewish institutions, Weequahic Park, and abutting the park, apartment developments.
12. Dayton: Practically physically isolated from the other communities, Dayton consists of two public housing projects, and many 1 to 6 family structures. There are few institutions in this small community other than the Dayton Street School.
13. Meadowlands Port and Industrial District: Containing approximately one-third of the city's land area, the Port and Industrial District is a maze of diversified industries and railways, highways, bridges, interchanges.
- 13A. Frelinghuysen Industrial Area: Intensively developed for industrial use, this section also has a commercial strip flanking Frelinghuysen Avenue, Pennsylvania Railroad, and Route 1.
- 13B. Newark Airport: The major metropolitan airport for passengers and air cargo, under the jurisdiction of the Port of New York Authority, described fully elsewhere in this report.
- 13C. Port Newark: A major coastal and international seaport for special and general cargo, likewise described fully elsewhere in this report.

C. TABULAR LISTING OF IDENTIFIED COMMUNITIES AND NEIGHBORHOODS

<u>Numerical Designation</u>	<u>Name</u>	<u>Area in Acres*</u>	<u>Population**</u>
1	Downtown	680	25,000
2	North Newark	1,780	60,000
2A	Forest Hill	690	18,000
2B	Woodside	495	13,000
2C	Branch Brook	615	28,000
3	Roseville	785	45,000
3A	Silver Lake	180	9,000
4	Vailsburg	930	43,000
4A	Ivy Hill	230	6,000**
4B	East Vailsburg	105	4,500
5	West Side	860	55,000
5A	Fairmount	310	15,000
5B	Springfield Hill	550	40,000
6	West Market	405	24,000
7	Belmont	440	50,000
8	Clinton Hill	625	41,000
9	Lincoln Park South	280	14,000
10	Ironbound	1,360	52,000
10A	Riverbank	335	11,000
10B	South St.	400	9,000
11	Weequahic	920	40,000
12	Dayton	410	3,500**
13	Meadowlands Port and Industrial District	5,585	not computed
13A	Frelinghuysen Indust. Area	610	" "
13B	Newark Airport	1,535	" "
13C	Port Newark	795	" "

* Approximate acreage, rounded to nearest 5 acres

** Rounded estimates based upon 1950 U. S. Census. Large increases since 1950 occurred in two communities for which the 1959 population is estimated as follows: Ivy Hill, 14,000, Dayton, 7,000.

CHAPTER VI: SKETCH PLANS FOR RENEWAL AREAS

A. GENERAL METHOD OF PROCEDURE

As indicated earlier in this report, each renewal treatment area -- suitable for conservation, rehabilitation or redevelopment (residential or non-residential) -- should be provided with a sketch (generalized) plan. In turn, such local sketch plans will be combined into General Neighborhood Renewal Plans (GNRP). They will be prepared partly within the present project and partly within the following ten-year renewal program.

The sketch plan will consist of the following components:

1. Generalized or Sketch Re-use Land Plan, including the general arrangements of uses, heights, densities, land coverages, circulation, relationship to general plan and general community objectives;
2. Generalized Public Improvements Plan, including streets and highways, sidewalks, curbs, gutters, sewers, water lines, parks and recreation areas, schools, public institutions and related public improvements required to implement the generalized re-use plan;
3. Generalized Financial Plan, including the estimates of cost of public improvements, local cash and non-cash grants-in-aid, scheduling of the city's capital improvement program for the project area, pooling of credit from other assisted or an unassisted project, estimate of the effect of execution on the city's capital account, debt position and fiscal situation;
4. Generalized Relocation Plan, including a rough estimate of the relocation load likely to result from project execution and the feasible and practicable means to be employed to accomplish such relocation: through the private market, in new or existing public housing, through rehabilitated units, through use of Section 221 Relocation Housing, Section 220 Financing, and other means.

Furthermore, each of the predominantly conservation, rehabilitation and redevelopment areas delineated in accordance with the above principles and criteria will be listed in its priority of urgency. Urgency will be determined with respect to the following and other related considerations:

1. Degree of blight involved;
2. Priority of related improvements in the City's Capital Improvement Program;
3. Conformance with the City Master Plan;

4. Availability of related funds, grants or gifts from other projects or from state or federal agencies;

5. Practical feasibility of achieving requisite workable objectives such as:

- Neighborhood or community organization
- Area enforcement of codes
- Revisions of codes or ordinances
- Removal of blighted structural conditions
- Removal of environmental conditions contributing to blight
- Provision of necessary community facilities or public improvements
- Provision of necessary governmental services to secure the gains of physical rehabilitation or conservation

6. Relationship of the project to other programs particularly where there is the possibility of pooling local renewal grants-in-aid for assisted types of renewal undertakings.

B. PROGRAM FOR A SELECTED PILOT NEIGHBORHOOD
(Interim Report by the Architectural Consultant)

1. Design Approach

The architectural consultant has under study a specific example of approach to problems of a renewal neighborhood, using as the pilot site of investigation a section of the Clinton Hill community.

Here a study is being made of anchoring established community features, or newly suggested facilities, to the best purposes of the renewal proposal: Development of a park area in front of a school by closing of a street, and its connecting devices to a recreational area a block or two away; relation of the recreational area to other points of orientation; development of architectural features within the play area; development of new vistas of interest. Selection of typical residential structures, and development of suggested facile standard methods of rehabilitation, are being considered.

Attention is being given to methods of traffic diversion and control, with study of appropriate physical changes which will enhance the solution without impeding the access requirement of fire apparatus, etc. Proposed solutions for internal parking areas, to relieve street congestion and allow improved sanitation practices, is under consideration.

2. Study and Planning Outline

- a. Often in typical structures, it is possible to find common salient features of essential design and construction which, when allowed to deteriorate through lack of maintenance, cast the pale of blight over entire neighborhoods. Or these features, because of intrinsically poor design, may contribute to an appearance of low quality and thus help to generate disinterest in conservation or rehabilitation.

It is proposed to develop physical design techniques for the removal of this type of deterioration or of these elements which are commonly found to be of poor design, and to project simple, standard, and perhaps economical approaches to replacements of good design. These features may include porches, terraces, stairs, roof and dormers, roof overhangs, window and door arrangements, etc.

- b. Standard approaches to the use of vacant lots to promote conservation and rehabilitation will be studied. The possibility of utilizing these, without great cost or effort, for "tot-lots" and "small-fry" play areas; for green oases for sitting, sunning, and reading; for active recreational (basket-ball practice) areas; for off-street parking, etc.
- c. The possibilities of improving neighborhoods through a reorganization of traffic practices will be explored. The imposing of one-way traffic rules, the prohibition of parking, the channeling of traffic away from areas, or a combination of these or the reverse thereof; all will be investigated to determine the extent of beneficial effect.
- d. Where street areas are such that they may be unnecessary for flow of traffic, an attempt will be made to develop standards for creating recreational, or parking or commercial loading areas (as the case may suggest).
- e. The beneficial influence of protective park areas, landscaped buffer zones, and green ways, will be studied; and suggestions for their simple design will be indicated. This may refer to the industrial areas which encroach, visually or physically, on residential areas; to through-ways, parkways, elevated or depressed highways; railroads, and to heavy commercial activity centers where separation is indicated as an aid to conservation.
- f. Where it is possible to develop standards which will indicate the value of closing streets as an aid to improvement or conservation of areas, these will be delineated.
- g. Many neighborhoods contain handsome structures, monuments, public buildings, parks, squares, schools, etc., which may be considered "anchor" features around which to rebuild or conserve the pertinent areas. By a judicious handling of these places of interest as the focal points of new vistas, and by a combination of the foregoing proposals, new enjoyment of neighborhoods can be achieved in both the functional and aesthetic sense. An attempt will be made to indicate methods for securing such results.

CHAPTER VII: LEGAL STUDY
Interim Report by the Legal Consultant

A. INTRODUCTION

As one of the elements of the project, the Legal Consultant has been entrusted to develop the types of legal instruments necessary to implement renewal, once areas have been delineated and generalized plans have been prepared.

Items to be investigated, among others, are the basis for the elimination of non-conforming land uses, aesthetic zoning or controls, differential levels of code enforcement, regulation of rooming houses, property improvements, and inducement to owners to establish standards higher than the police-power minimum.

B. REGULATION OF ROOMING HOUSES

As the initial phase of the Legal Consultant's study, it was felt urgent to investigate the type of regulations needed for rooming house use and operation.*

It is our opinion that the unrelated growth of rooming houses in Newark and presumably in other urban centers poses a threat to the residential character of the city both from the point of view of enforcement of housing standards and from the breakdown in the family pattern on which neighborhoods are largely based. This part of the study is concerned essentially with the development of a legal framework for rooming house regulations.

The drafting of rooming house regulations has been achieved by a working committee of Newark Commission For Neighborhood Conservation & Rehabilitation which has met over many months for the purpose of analyzing problems relating to the upsurge in conversions to rooming house use. The committee included representatives of the Department of Health and Welfare charged with the responsibility of enforcing the housing codes, a representative of the Superintendent of Buildings, a staff member of the Bureau of Municipal Research, the chairman of the Newark Commission For Neighborhood Conservation & Rehabilitation, a representative of the Law Department and the legal consultant who served as chairman and acted as coordinator and researcher. The committee consulted with staff members of the Central Planning Board, the electrical bureau, plumbing, supervisor of licenses, and police. The wide participation achieved among the various city agencies in the development of rooming house regulations produced significant results.

*Priority was also given to this phase of the study due to the fact that the Newark Commission For Neighborhood Conservation & Rehabilitation is presently engaged in drafting rooming house regulations. The research from this investigation is very useful to the Commission's working committee.

First, in the course of discussing prospective regulations a far greater degree of understanding of the function and inter-relationship of various departments was achieved among the responsible officials themselves. Second, the regulations resulted in proposed changes in related codes, such as, the fire prevention code, the zoning ordinance and the building code, so that for the first time city codes were read one against the other and inconsistencies were eliminated in definitions and in regulatory provisions. Thirdly, important questions relating to "jurisdiction" and "liason" between and among the various services concerned with inspections were raised for study. Important among these was the question of whether to use inspectors who were generalists or teams of specialists. Confronted with the immense prospect of an estimated 5,000 rooming house inspections and the issuance of licenses, a decision was reached to use a general inspector who was to be charged with duties which dealt with some of the specialties, electrical, plumbing, and fire prevention to mention three. While the inspectors as generalists will, we now anticipate, have duties in these areas previously considered the sacred preserve of the individual bureau, (electrical, plumbing, etc.) the bureau personnel would still serve as the technical specialists passing on installations and on matters which require highly specialized knowledge and experience. The evolution in the philosophy of inspections and of the duties of inspectors will be discussed at greater length as the project proceeds.

This promises to be a productive experiment in finding means of increasing inspection efficiency in the face of mounting inspection responsibilities as the urban renewal program progresses. Fourth and related to Three is the growing realization that the undertaking of a massive rooming house licensing program would require more concentrated attention on the training of inspectors as a sine qua non to effective enforcement. The committee through its analysis was of the view that the drafting of regulations and the passage of an ordinance requiring licenses of rooming houses would be meaningless unless paralleling the drafting of the ordinance there was a reorganization and reorientation of the inspection services to handle effectively the new enforcement program.

As a result of the new introspection of officials responsible for the success of the program and the fruitfulness of the interchange which the committee's work produced, two tentative recommendations might be made at this time.

Tentative Recommendation I. That review of Housing and related code provisions be formalized in such a way that it be done periodically, for example, annually in the month of March, unless more frequent review is indicated. The participants in the review should be representatives of the agencies immediately involved with the codes and these representatives should be mindful of noting specific suggestions for revision during the period between reviews. In this way, the codes can be up-dated on a continuous empirical basis and room for experimentation is possible as periodic review is assured. The lack of any such conscious review of the codes in past years has resulted for example in complete confusion and in litigation as to what a rooming house is--i.e., the word has been used in the zoning ordinance but was never adequately defined. While the review

committee should be kept small, its existence should be known to all agencies who may be in any way affected even though the staff of such agencies may not participate on the committee and the suggestions of such agency's staff should be solicited prior to the review. Also, these agencies should be assured of liaison on those matters which might affect their operation. The code Review Committee should be an integral part of the ten year annual up-dating procedure.

Tentative Recommendation II. That review of the code under I be supplemented by periodic review of the enforcement procedures, the forms used, the liaison between inspection officers, the prosecution of the complaints, the volume of work and community reaction and cooperation. The review would provide a formalized opportunity to intensify the search for means of improving the operational procedures. This review being more closely akin to actual administration should be utilized to assure continuing conscious effort to re-examine procedures critically but should not be a replacement for the normal administrative roles of the Department or the Division heads.

The consultant has compiled the work of the committee into a complete revision of the housing code which would incorporate detailed provisions for the regulating and licensing of rooming houses. The City under existing ordinances provides for a system of registration of rooming houses but as has been noted previously without any adequate definition of rooming houses and without regulations which are tailored to the specific problems of rooming houses.

As part of this study ordinances of other municipalities were studied and much assistance was obtained from Volume #2, Minimum Housing Standards Ordinance, of the Demonstration Project by the New York State Division of Housing entitled Housing Codes, The Key to Conservation. However, certain problems were raised which every community must decide for itself in arriving at basic policy for governing rooming houses. Four of these major issues, with the solution arrived at by the consultant and the committee for Newark, are indicated herein in such a way that other communities interested in framing a rooming house ordinance may consider the same problems raised without necessarily adopting our answers.

The four problems referred to above are:

1. Should an ordinance regulating rooming houses provide a licensing procedure or should it rely on registration? (with the same substantive requirements in either case).

Problems of enforcement were discussed as they relate to this issue and, while recognizing that licensing provides no automatic panacea, it is felt that greater control could be achieved through licensing and that psychologically the threat of revoking or suspending a license would be an effective weapon even though it would not actually affect the ultimate penalty.

2. What is a rooming house? What are the factors that enter into the drafting of a definition that will meet local needs?

From our analysis, we concluded that the definition of "rooming house" should be conterminous with the class of structures which were to be subject to the licensing procedure rather than trying to define the term in accordance with varying popular concepts. For example, rooming houses are frequently thought upon as being limited to places which rent furnished rooms. The present Newark code contemplates "fully or partly furnished rooms". The reference to furnishings is being dropped.

In developing a new definition the following problems were explored at length and resolved:

- a. Considering the enormous growth of the practice of renting rooms, the large number of structures and the limited inspection of the facilities, what were the practical bounds to which licensing should be extended?

We believe, after study, that the rooming house licensing operation should be reasonably self-sustaining. The cost of inspections should be borne in the main by the operators themselves. Considering that at a minimum the inspection services would cost \$15.00 a year, it became apparent that this would be an unreasonable burden to expect the owner of a dwelling renting one or two rooms to bear. The inspection operation would be warranted, it was felt, where there was either four or more roomers or three or more rooming units for rent.

- b. How did the above conclusion correspond to the health and safety hazards which the new provisions were designed to prevent?

The most menacing conditions it appeared existed in the structures which were converted in part or whole to the business of operating a rooming house as distinguished to the incidental renting of a room or two in a home. We felt that the definition we developed drew a realistic, albeit arbitrary, line between renting rooms as a business as distinguished from renting rooms incidental to the personal use of the owner.

- c. How could the definition be framed to facilitate the work of the inspectors?

We were convinced that a "rooming house" use could be more readily detected if the inspector could observe and count rooming units rather than have to rely entirely on an estimate of how many people might be renting rooms in the premises. For that reason, the definition proposed at page 7 of the Minimum Housing Standards Ordin-

ance Demonstration Project (referred to above) was not adopted. Three or more rooming units, irrespective of the number of tenants, for rent or available for rent constitutes a rooming house under our definition. Also, where there are four or more tenants in a structure, it is classified as rooming house regardless of the number of rooming units.

Another feature of the definition which was framed in terms of actual observable, physical conditions on the premises is described more fully in "d".

- d. Also troublesome was how to treat rooms which were so located in a building that it was difficult to determine whether they were part of a dwelling unit occupied by a family or were independent rooms which should be counted in determining whether the building was to be classified as a rooming house.

This question was resolved by a provision in the definition that included all rooms rented or available for rent (and the occupants of such rooms) as part of the count unless the room was located entirely within walls or partitions forming a dwelling unit and separating that dwelling unit from common stairways, hallways and areaways. Persons within certain stated relationships of blood, marriage or adoption to the owner or operator and the rooms they occupy would not be included in the count.

We felt that terminology relating to physical structure would enable the inspector to make on-the-spot determinations and would facilitate enforcement.

The rooming house definition that was developed classified buildings as rooming houses when the persons renting individual rooming units exceeded a specified number or in the alternative when the number of units rented in one structure exceeded a specified number. Thus there was both a physical standard and also a standard based on number of persons involved, unlike the Minimum Housing Standards Ordinance (*Supra*) which defines rooming house solely in terms of number of persons. (See definition on page 7 of that Ordinance.) The committee felt that while such a definition as in the Minimum Housing Standards Ordinance had value, frequently it is difficult for an inspector to determine how many people live on the premises while it is much easier to spot and count during an inspection the actual number of rooming units.

Also of concern in formulating a definition was the desire to permit a limited number of unrelated persons to live with a family (family being defined in terms of relationship of blood, marriage or adoption) without being classified as a rooming house. It was the committee's intention to frame this definition so that those used which could be likened to a business operation as distinguished from the renting of one or two rooms as an incident to the occupancy of the dwelling unit, would fall within the ambit of regulations. This approach introduced complications where there were several dwelling units and some rooms which were so located as not to be identified as either within or without any particular dwelling unit. The committee debated when to consider such a hybrid structure a rooming house and when merely a two-family or three-family house (or more) with additional rooms.

This problem was resolved by limiting a dwelling unit to occupancy by one family per unit. To permit some flexibility within a dwelling unit, the family definition was expanded to allow for two unrelated persons. However, any room and the occupants of such room which was not located within the walls or partitions which separated a dwelling unit from common stairways, hallways and areaways are to be included in the room count and person count in order to determine whether the entire structure was a rooming house. The committee believed that by utilizing a formula which dealt with the physical structures pertaining to the location of walls, rather than abstract terminology, they would be providing a more workable definition for the inspection personnel who have to make on-the-spot determinations.

3. Should cooking be permitted in rooming houses? This evoked also a great deal of discussion and review. Initially, the committee's draft, like the Minimum Housing Standards Ordinance, prohibited all cooking in rooming units but later the draft was modified to permit cooking facilities provided that all facilities are present, namely, refrigeration, storage, sink, drainboard, garbage containers and ventilation. Thus the committee recognized the practical problem of thousands of older residents who must cook in their quarters to make ends meet but attempted to so draft the provision as to discourage cooking inside rooming units and to assure that where it exists all the facilities necessary for safety and health are provided. Because of the large investment in providing the full range of kitchen facilities, this type of accommodation will be not too frequent and if the code is enforced strictly, cooking in rooming units will be sharply curtailed. Common or communal cooking facilities in rooming houses are to be banned except where the operator cooks and serves food as in a boarding house. This is done because health officials of the city felt that the common or communal kitchen in which roomers did their own cooking was a prime cause of unsanitary conditions.

4. Should any children be allowed to live in rooming houses? The committee decided to prohibit unemancipated minors except for students away from home and those children who are under the direct care of the owner or operator who supplies the child with at least one hot meal. The committee believes occupancy by minors, other than as noted above, is undesirable and detrimental to their health besides being socially undesirable, and the prohibition against unemancipated minors makes a significant advance in rooming house regulations.

C. HOUSING CODE REVISION

As a further result of the committee's meetings the consultant has revised the Housing Code drawing in some measure on the Minimum Housing Standards Ordinance (supra) with the view to reorganizing parts of the Newark code into a more readable sequence, simplifying the language, and eliminating repetition now present in this code. As part of the planning for rehabilitation successively in various parts of the city a handy well-indexed and readily usable Housing Code Manual would be an essential tool. Therefore, the Central Planning Board and the Newark Commission for Neighborhood Conservation and Rehabilitation is most concerned with this revision and realignment of the Housing Code.

Our work along these lines brought into focus certain problems which will bear further study. For example, the use of rules and regulations as suggested in the New York Minimum Housing Standards Ordinance would seem to be highly desirable for Newark but there is some doubt about the legality of delegation of such powers to an administrative officer in the absence of specific state enabling legislation. The consultant in a later report will embody a recommendation on this problem as such flexibility would seem to be essential to an evolving rehabilitation program. Also, there is presently in litigation the question of retroactivity, i.e., to what extent can a housing code impose requirements on existing structures without running afoul of the constitutional limitation of due process and equal protection of the laws. This problem too will be discussed in a later report as it is fundamental to the development of the housing code; and the appeal when decided will provide enlightening precedent.

D. LEGAL MEANS OF EMPHASIZING AESTHETIC CONSIDERATIONS

The consultant is proceeding with the study of means of emphasizing and enhancing aesthetic features of a community as part of urban renewal. To date a compilation of cases and law review articles relating to aesthetic regulations has been made. Specific consideration is being given to devices that may be utilized in connection with zoning. Presently, the City of Summit, New Jersey is engaged in litigation involving an ordinance containing aesthetic regulation features. The outcome of this litigation will shed further light on this problem, although the issues which may be involved there are not entirely similar to those which may become important as part of this project.

Consideration will be given to aesthetic regulation and inducements outside of zoning. For example, a feature of the Minimum Housing Standards Ordinance which will be recommended for adoption in Newark and which entails "aesthetic" considerations will be explored, to wit, the provision which requires exterior areas of premises and of the building to be so maintained "as not to cause a substantial depreciation in property values in the immediate neighborhoods." Other matters which may relate to this part of the study are framing neighborhood appearance compacts both for residential and commercial owners; studying the additional powers which might be appropriate in urban renewal areas but not appropriate elsewhere; the possible adaptation of proposals made in 1958 by the Regional Plan Association, etc. An attempt will be made to secure some original approaches to the question of increasing the attractiveness of neighborhoods as part of the overall renewal plan.

In addition to the work already performed as described herein, the consultant has met from time to time with other members of the Demonstration Grant Project staff and has participated in some of the conferences in which study procedures have been developed. Also, much basic material has been reviewed so that the study will not repeat work already undertaken but will provide new material and a unique contribution to urban renewal thinking in keeping with the purposes of the project. A schedule of study problems has been worked out with the project director and will be pursued as the project proceeds.

CHAPTER VIII: FUTURE PROGRAM

A. PRINCIPAL DIRECTION

It is the intention of the project staff to proceed along the renewal planning road as set forth in the Demonstration Grant application and most recent revision, as well as generally outlined in a recent statement by James Wilson Rouse, president of the American Council to Improve Our Neighborhoods (ACTION). He said, in part:

"The big job is to break up the grim, massive inner reaches of our cities into neighborhoods of human size and scale, where people can live and shop, go to church, play, raise families, and feel that they belong. First these neighborhoods must be defined by natural boundaries and centered on common facilities. Then the junk yards and worn-out buildings must be removed, the commercial uses concentrated together insofar as possible, traffic routed outside, parks and playgrounds provided within. We must create neighborhoods in fact, not just area labels on a planner's map."

"The comprehensive plan must also provide a new central business and cultural 'neighborhood' for the city, updated to meet the requirements of the automobile age. This will mean major reorganization of downtown, with access highways, peripheral parking, and a pedestrian core where people can walk from offices to shops along covered walkways and through pleasant parks and squares. It must be an environment where people can not only do business, but can rest and smile and breathe fresh air as well."

"It's about time we stopped apologizing for beauty, feeling we always have to try to find some 'practical' reason or 'economic use' for doing something. To create a park because it makes a more beautiful city is reason enough. Beauty is an enormously strengthening, vital force in the city. It is a protest against disorder. People are far less willing to defile an area that is truly beautiful than an ugly one. Ugliness itself promotes disorder, and disorder in the end promotes decay, and decay winds up in the kind of uneconomic, slum-ridden areas we see around the core of every city today."*

*"ACTION'S Rousing Mr. Rouse," Architectural Forum, May 1959, pp. 128, 129.

This article was one of the forerunners to ACTION'S first national conference on the American City held in Newark, New Jersey, May 4, 5 and 6th to launch ACTION'S mobilization of a full-scale attack on U. S. urban problems.

B. SPECIFIC PLANNING

1. Treatment Areas

With regard to the selection of renewal treatment in the physical sense, four general types of areas will be delineated in accordance with the criteria developed:

- a. Predominantly Clearance Areas or those areas with a predominance of deep slum conditions where it appears likely that clearance and redevelopment should be completed by the end of the ten-year period;
- b. Predominantly Pre-Clearance Areas or those which have predominantly deep slum conditions but in which, due to lack of public resources and existence of other areas more urgently requiring clearance, it is unlikely that clearance and redevelopment will be undertaken before the end of the ten-year period but where, nevertheless, occupancy is likely to continue and relief of public or private nature or both is required in the public interest to insure at least a minimum level of public health, safety, morals or general welfare;
- c. Predominantly Rehabilitation Areas or those areas in which existing structures and/or neighborhood environment are deteriorating but which will be, for the most part, economically salvable within the ten-year period;
- d. Predominantly Conservation Areas or those areas in which, for the most part, the existing structures and/or neighborhood environment have not substantially deteriorated but where there are endemic factors which, if not removed or arrested within the ten-year period, could appreciably deteriorate the neighborhood.

The above treatment areas will be selected not only for residential development but also for commercial, industrial and other non-residential renewal. In this connection, possible changes or alterations may be suggested to the city's Master Plan and Zoning Ordinance, to be further studied as part of the future 10-year renewal program.

2. Ten-Year Renewal Program

There will be established a ten-year schedule of priority for the execution of renewal within the treatment areas. The ten-year Renewal Program for Conservation-Rehabilitation & Redevelopment will include the following and related items for each area.

- a. Plan of coordinated administrative action for clearance, land disposition, code enforcement, building inspection, zoning, subdivision control and general city services

such as: education, recreation, health, welfare, fire, police, etc.;

- b. Plan of action with respect to clearance, spot clearance and rehabilitation, and coordination between related programs of public housing, middle income housing, redevelopment, scattered public housing, etc.;
- c. Plan of relocation to accompany clearance, spot-clearance and reduction of occupancy in existing structures, making fullest use of: middle income housing, vacancies in public housing, the private market, etc.;
- d. Plans of neighborhood organization for conservation and rehabilitation to be worked out with the Council of Social Agencies of Newark and Associated Community Councils;
- e. Plan for control and use of (1) vacant city-owned land and (2) traffic and parking regulation for maximum promotion of urban renewal objectives;
- f. Program of public works and community facilities necessary to put the ten-year renewal schedule into effect; and
- g. Program of financing, including city taxing policy, use of city contributions or public improvements, federal aid, federal mortgage insurance, private loan funds, pension funds, cooperative corporations, etc.

Furthermore, a study and recommendations will be made on the measures necessary to implement the appropriate renewal action for each renewal area and for the city as a whole. Organization and procedures will be suggested for the continuous annual up-dating of the Permanent Ten-Year Schedule of Renewal Priority.

TECHNICAL APPENDIX

Note: All tables in this Appendix are from the Real Property Appraisal Manual, Division of Assessment, Department of Finance, City of Newark.

TABLE I
UNIFORM GUIDE FOR ESTIMATING EFFECTIVE AGE

Actual Age of Building in Years		Estimated Percent of Building Remodeled, Altered or Added																											
		10%			20%			30%			40%			50%			60%			75% & Above									
		Average Age of Remodeling, Alterations or Additions in Years																											
		5	15	25	35	5	15	25	35	5	15	25	35	5	15	25	35	5	15	25	35	5	15	25	35	5	15	25	35
		Estimated Effective Age of Building in Years																											
10 years	15	10	-	-	-	9	-	-	-	8	-	-	-	8	-	-	-	7	-	-	-	6	-	-	-	-	-	-	-
20 years	25	14	-	-	-	13	-	-	-	11	-	-	-	10	-	-	-	9	-	-	-	7	-	-	-	-	-	-	-
30 years	35	18	19	-	-	17	19	-	-	14	18	-	-	13	18	-	-	11	17	-	-	9	16	-	-	-	-	-	-
40 years	45	23	24	-	-	21	23	-	-	19	22	-	-	15	20	-	-	13	19	-	-	10	17	-	-	-	-	-	-
50 years	55	28	29	30	-	25	27	29	-	23	26	29	-	18	23	28	-	15	21	27	-	11	19	26	-	-	-	-	-
60 years	65	32	33	34	-	29	31	33	-	26	29	32	35	20	25	30	35	17	23	29	35	12	20	27	35	-	-	-	-
70 years	75	37	38	39	40	33	35	37	39	30	33	36	39	23	28	33	38	19	25	31	37	14	21	29	36	-	-	-	-
80 years	85	41	42	43	44	37	39	41	43	33	36	39	42	25	30	35	40	21	27	33	39	15	22	30	37	-	-	-	-
90 years	95	46	47	48	49	41	43	45	47	37	40	43	46	23	33	38	43	23	29	35	41	16	24	31	39	-	-	-	-
100 or over		50	51	52	53	45	47	49	51	40	43	46	49	30	35	40	45	25	31	37	43	17	25	32	40	-	-	-	-
		55	56	57	58	49	51	53	55	44	47	50	53	33	38	43	48	27	33	39	45	19	26	34	41	-	-	-	-
		59	60	61	62	53	55	57	59	47	50	53	56	35	40	45	50	29	35	41	47	20	27	35	42	-	-	-	-
		64	65	66	67	57	59	61	63	51	54	57	60	38	43	48	53	31	37	43	49	21	29	36	43	-	-	-	-
		68	69	70	71	61	63	65	67	54	57	60	63	40	45	50	55	33	39	45	51	22	30	37	44	-	-	-	-
		73	74	75	76	65	67	69	71	58	61	64	67	43	48	53	58	35	41	47	53	24	31	39	46	-	-	-	-
		77	78	79	80	69	71	73	75	61	64	67	70	45	50	55	60	37	43	49	55	25	32	40	47	-	-	-	-
		82	83	84	85	73	75	77	79	65	68	71	74	48	53	58	63	39	45	51	57	26	34	41	49	-	-	-	-
		86	87	88	89	77	79	81	83	68	71	74	77	50	55	60	65	41	47	53	59	27	35	42	50	-	-	-	-
		91	92	93	94	81	83	85	87	72	75	78	81	53	58	63	68	43	49	55	61	29	36	44	51	-	-	-	-

TABLE II

EFFECTIVE AGE DEPRECIATION DEDUCTIONS

Effective Age In Years	Sheds	D-I	D-II	D-III	D-IV	D-V	D-VI	D-VII
1	4.0%	2.5%	2.0%	1.5%	1.5%	1.0%	1.0%	.5%
2	7.0	4.5	3.5	2.5	2.5	2.0	2.0	1.5
3	11.0	7.0	4.5	3.5	3.0	2.5	2.5	2.0
4	16.0	9.0	6.0	4.5	4.0	3.5	3.5	3.0
5	20.0	11.0	7.0	5.5	4.5	4.0	4.0	3.5
6	22.0	13.0	8.5	6.5	5.5	5.0	5.0	4.5
7	27.0	15.5	10.0	8.0	6.5	6.0	5.5	5.0
8	30.0	17.5	11.0	9.0	8.0	7.0	6.5	6.0
9	34.0	20.0	12.5	10.5	9.0	8.0	7.0	7.0
10	37.5	22.0	14.0	11.5	10.0	9.0	8.0	7.5
11	41.0	24.0	15.5	13.0	11.0	10.0	9.0	8.0
12	44.0	25.5	17.0	14.0	12.0	10.5	9.5	9.0
13	47.0	27.5	18.0	15.5	13.0	11.5	10.5	9.5
14	50.0	29.0	19.5	16.5	14.0	12.5	11.0	10.0
15	52.0	31.0	21.0	18.0	15.0	13.5	12.0	10.5
16	54.0	33.0	22.5	19.0	16.0	14.5	13.0	11.0
17	56.0	34.5	24.0	20.5	17.5	15.5	13.5	12.0
18	58.0	36.5	25.5	21.5	18.5	16.5	14.5	12.5
19	60.0	38.0	27.0	23.0	20.0	17.5	15.0	13.5
20	62.0	40.0	28.5	24.0	21.0	18.5	16.0	14.0
21	64.0	41.5	30.0	25.5	22.0	19.5	17.0	14.5
22	65.0	43.0	32.0	27.0	23.0	20.5	17.5	15.0
23	67.0	45.0	33.5	28.0	24.5	21.5	18.5	16.0
24	68.5	46.5	35.0	29.5	25.5	22.5	19.0	16.5
25	70.0	48.0	36.5	31.0	26.5	23.5	20.0	17.0
26		49.5	38.0	32.5	28.0	24.5	21.0	18.0
27		51.0	39.5	34.0	29.0	25.5	22.0	19.0
28		52.0	41.0	35.0	30.5	26.0	23.0	20.0
29		53.5	42.0	36.5	32.0	27.0	24.0	21.0
30		55.0	43.5	38.0	33.0	28.0	25.0	22.0
35		61.0	49.0	44.0	38.5	33.5	29.0	26.0
40		65.0	54.0	47.5	43.0	37.0	33.0	30.0
45		68.0	58.0	50.5	44.5	38.5	34.5	31.5
50		70.0	62.5	53.0	45.5	39.5	35.5	32.5
55			65.0	55.0	47.0	41.0	37.0	34.0
60			68.0	57.0	48.0	42.0	38.0	35.0
65			70.0	59.0	49.5	43.5	39.5	36.5
70				60.5	50.5	44.5	40.5	37.5
75				62.0	52.0	46.0	42.0	39.0
80				63.0	53.0	47.0	43.0	40.0

NOTE: D-I, D-II, etc. refer to type of wall construction. These are defined in building class specifications, which have not been included in this report.

TABLE III
Over-Improvement Obsolescence
Deductions for Single and Double Family Structures

Ratio of depreciated building value to land value							Percentage Obsolescence
Building Value	20 times greater than land value						5%
" "	25	"	"	"	"	"	10
" "	30	"	"	"	"	"	15
" "	35	"	"	"	"	"	20
" "	40	"	"	"	"	"	25
" "	45	"	"	"	"	"	30
" "	50 or more	"	"	"	"	"	35

TABLE IV
Over-Improvement Obsolescence
Deductions for Large Single-Family Structures

<u>Ground Area</u>	<u>Number of Stories</u>		
	2	2- $\frac{1}{2}$	3
1200	5%	10%	10%
1300	5	10	10
1400	10	15	15
1500	10	15	15
1600	15	20	20
1700	15	20	20
1800	20	25	25
1900	20	25	25
2000	25	30	30
2100	25	30	30
2200	25	30	35
2300	25	30	35
2400	30	35	35
2500	30	35	40
2600	30	35	40
2700	35	40	40
2800	35	40	45
2900	35	40	45
3000	40	45	45
3100	40	45	50
3200	40	45	50
3300	45	50	50
3400	45	50	50
3500 or over	50	50	50

TABLE V

Under-Improvement Obsolescence Deductions
for Residences, Tenement or Apartment Structures

Section A - Single and Double Family Residential Structures-
(Classes 10.1 to 12.3)

Front Foot Land Value	Depreciated Value of Buildings or Buildings on Parcel				
	Up to \$3,000	\$3,001 to \$5,000	\$5,001 to \$10,000	\$10,000- \$20,000	over \$20,000
Up to \$75	0%	0%	0%	0%	0%
\$76 to 85	10	8	7	0	0
86 to 95	15	14	13	7	0
96 to 105	25	23	20	13	11
106 to 115	35	35	30	20	17
116 to 125	60	50	43	28	24
126 to 170	85	70	65	43	38
171 to 225	85	85	85	65	56
over 225	85	85	85	85	85

Section B - Tenement or Apartment Structures (up to 8 units)
(Classes 13.1 to 13.4)

Front Foot Land Value	Depreciated Value of Buildings or Buildings on Parcel				
	Up to \$5,000	\$5,001 to \$7,500	\$7,501 to \$15,000	\$15,001- 30,000	over \$30,000
Up to \$95	0%	0%	0%	0%	0%
\$96 to 105	5	5	4	3	3
106 to 115	15	14	12	9	8
116 to 130	25	23	20	14	13
131 to 160	40	37	32	23	20
161 to 210	60	56	48	35	30
211 to 300	85	85	80	60	50
301 to 400	85	85	85	85	75
over 400	85	85	85	85	85

Note 1. Table B does not apply to tenement or apartment structures which have stores or offices on the first or ground floor level.

Note 2. Table B does not apply to tenement or apartment structures located on parcels which are considered as rear lots off of high unit land value streets.

TABLE VI

Obsolescence Deductions for Multi-Family
Apartment Buildings (4 Stories or less)-(classes 14.1 to 14.3)

Number of Units in Building	Obsolescence Percentage
8-16	30%
17-20	25%
21-24	20%
24+	10%

TABLE VII

Example of Income Analysis for a Class 13.3 Tenement or Apartment Building which has an effective age of 25 years and in Normal Physical Condition

Effective Gross Annual Rental	
(Gross rent less collection losses and vacancies).....	\$13,350
Less:	
Operating Expense, before taxes and depreciation, 50%.....	- 6,675
Net Operating Profit, before taxes and depreciation.....	\$ 6,675
Less:	
Return on Established Land Value of \$10,000	
5% return on Land, and 2- $\frac{1}{2}$ % tax on land.....	- 750
Net Return applicable to Building.....	\$ 5,925
Capitalization Rate	6% return on building
	2 $\frac{1}{2}$ % estimated for taxes
	2 $\frac{1}{2}$ % estimated for depreciation
	(estimated 40 yrs. life remaining)
Total Capitalization	
Rate	11%
Capitalized Value of Building (\$5,925 $\div$ 11%.....)	\$53,860
Replacement Cost of Building (new) Class 13.3.....	\$95,000
Less:	
Depreciation due to age and condition (Table D-IV, 25 years old, 26.5% or net condition 73.5%.....)	-\$25,175
Building Replacement Cost Depreciated.....	\$69,825
Capitalized Value of Building (assuming market data, if any, corroborates income values).....	-\$53,860
Excess of Replacement Cost Depreciated over Capitalized Value..	\$15,965
Difference between Replacement Cost Depreciated and Capitalized Value represents 23% of the Replacement Cost Depreciated (15,965 $\div$ 69,825 -23%) and is the indicated economic obsolescence percentage.....	23%

TABLE VIII

Obsolescence Deductions for Store Buildings and Mixed Stores and Apartments, Offices, etc. (Classes 21.1 to 22.5)

Number of Stories Without Elevator Service	Obsolescence Percentage
3	20%
4	35%
5	50%
6	55%
7 and above	60%

TABLE IX

Obsolescence Deductions for Theater Buildings (Classes 27.1 to 27.4)

Percent Use of Theater Building	Obsolescence Percentage
Modern Theater in use	25%
Old Style Theater in use	40%
Modern Theater closed	45%
Old Style Theater closed	50%

TABLE X

INDUSTRIAL BUILDING ECONOMIC OR FUNCTIONAL OBSOLESCENCE DEDUCTIONS
 (FOR CLASSES 40 & 42)

Number of Stories	Type of Building Construction	15 years and Under			16 to 35 Years			Over 35 Years		
		Ground Area			Ground Area			Ground Area		
		Up to 10001	Over 10001	Over 25000	Up to 10001	Over 10001	Over 25000	Up to 10001	Over 10001	Over 25000
2	Frame	45	--	--	50	--	--	60	--	--
	Brick (Mill Type)	20	25	30	40	50	55	45	55	60
	Fireproof (Steel or conc.)	10	15	20	20	25	30	25	30	65
3	Frame	55	--	--	60	--	--	65	--	--
	Brick (Mill Type)	25	35	40	50	60	65	55	65	70
	Fireproof (Steel or Conc.)	15	20	25	25	30	35	30	35	40
4	Frame	65	--	--	70	--	--	75	--	--
	Brick (Mill Type)	40	50	55	55	65	70	60	70	75
	Fireproof (Steel or Conc.)	15	20	25	25	30	35	30	35	40
5	Frame	--	--	--	--	--	--	--	--	--
	Brick (Mill Type)	45	55	60	60	70	75	65	75	80
	Fireproof (Steel or Conc.)	20	25	30	30	35	40	35	40	45
6	Frame	--	--	--	--	--	--	--	--	--
	Brick (Mill Type)									
	Fireproof (Steel or Conc.)	20	25	30	30	35	40	35	40	45
Over 6	Fireproof	25	30	35	35	40	45	40	45	50

Note: One story industrial buildings should be given functional obsolescence only when evidence is available that the building is functionally obsolete and incapable of being converted from existing use to other uses. The appraiser will indicate this type of obsolescence, if any, during the final review operation. Generally, one story buildings (41 series) with excessive heights will be given obsolescence: 5%, 16' - 18'; 10%, 19' - 24'; 15% over 24'.

TABLE XI

Obsolescence Deductions for Office Buildings above Four Stories
(Classes 25.1 to 25.4)

Office Building Class	Obsolescence Percentage
Class A	20-30%
Class B	30-40%
Class C	40-50%
Class D	50-60%
Class E	65% Maximum

Note: Institutional buildings and buildings which are at least 75 percent owner-occupied are not included in the above obsolescence standards. Buildings in this category are treated individually.

TABLE XII

Obsolescence Deductions for
Mixed Stores and Offices in Downtown Areas
(Classes 22.1 to 22.5 and 25.1 to 25.2)

Actual Building Story Height	<u>Percentage Obsolescence</u> <u>Effective Building Height in Stories</u>							
	1	2	3	4	5	6	7	8
1	0							
2	28%							
3	54	25%						
4	57	40	20%					
5	75	55	37	18%				
6	80	64	48	32	16%			
7	82	67	54	40	27	13%		
8	85	72	60	48	36	24	12%	

TABLE XIII

Class
Number

CLASSIFICATION OF LAND AND BUILDINGS

NEWARK REAL PROPERTY APPRAISAL SURVEY*

Class Description

VACANT

00.00 Vacant - private
02.01 Vacant - exempt

RESIDENTIAL

10.00 Residential - non-specified
10.01 Low Cost Cottages and Cabins
10.02 Basement Dwellings, 1 Story
10.03 One-Family Dwellings - Low Cost Grade
10.04 One-Family Dwellings - Fair Grade
10.05 One-Family Dwellings - Below Average Grade
10.06 One-Family Dwellings - Average Grade
10.07 One-Family Dwellings - Above Average Grade
10.08 One-Family Dwellings - Good Grade
10.09 One-Family Dwellings - High Grade
10.10 One-Family Dwellings - Special High Grade
Mansion Type
11.00 One-Family Semi-Detached or Duplex Dwellings - non-specified
11.01 One-Family Semi-Detached or Duplex Dwellings - Low Cost Grade
11.02 One-Family Semi-Detached or Duplex Dwellings - Average Grade
11.03 One-Family Semi-Detached or Duplex Dwellings - Good Grade
12.00 Attached or Row Houses - non-specified
12.01 Attached or Row Houses - Low Cost Grade
12.02 Attached or Row Houses - Average Grade
12.03 Attached or Row Houses - Good Grade
13.00 Two to Six Family Tenements or Apartments - non-specified
13.01 Two to Six Family Tenements or Apartments - Low Cost Grade
13.02 Two to Six Family Tenements or Apartments - Fair Grade
13.03 Two to Six Family Tenements or Apartments - Average Grade
13.04 Two to Six Family Tenements or Apartments - Good Grade
14.00 Multi-Family Tenements or Apartments - non-specified
14.01 Multi-Family Tenements or Apartments - Non-Fire Resistive
Low Cost, 4 Stories or Less
14.02 Multi-Family Tenements or Apartments - Non-Fire Resistive
Average Grade, 4 Stories or Less
14.03 Multi-Family Tenements or Apartments - Fire Resistive
Good Grade, 4 Stories or Less
14.04 Multi-Family Elevator Apartment Buildings - Non-Fire Resistive
5 to 8 Stories
14.05 Multi-Family Elevator Apartment Buildings - Fire Resistive
5 to 8 Stories
14.06 Multi-Family Elevator Apartment Buildings - Fire Resistive
9 to 16 Stories

*As revised by the Central Planning Board.

Class
Number

Class Description

15.01	Tourist Courts and Motels - Low Cost Grade
15.02	Tourist Courts and Motels - Average Grade
15.03	Tourist Courts and Motels - Good Grade
16.01	Accessory Garages - Low Cost Grade
16.02	Accessory Garages - Average Grade
16.03	Accessory Garages - Good Grade
17.01	Public Housing

COMMERCIAL AND MIXED

20.00	Commercial - non-specified
20.01	Store Buildings - Low Cost, 1 Story
20.02	Store Buildings - Fair Grade, 1 Story
20.03	Store Buildings - Average Grade, 1 Story
20.04	Store Buildings - Good Grade, 1 Story
20.05	Store Buildings - Fire Resistive, 1 Story
21.01	Store Buildings - Non-Fire Resistive, 2 to 5 Stories
21.02	Store Buildings - Fire Resistive, 2 to 8 Stories
22.01	Combination Stores, Apartments, Hotel, Office or Loft Buildings - Low Cost, 2 to 5 Stories
22.02	Combination Stores, Apartments, Hotel, Office or Loft Buildings - Fair Grade, 2 to 5 Stories
22.03	Combination Stores, Apartments, Hotel, Office or Loft Buildings - Average Grade, 2 to 5 Stories
22.04	Combination Stores, Apartments, Hotel, Office or Loft Buildings - Good Grade, 2 to 5 Stories
22.05	Combination Stores, Apartments, Hotel, Office or Loft Buildings - Fire Resistive Type, 2 to 5 Stories
24.01	Hotel Buildings - Low Cost Lodging House Type, 2 to 4 Stories
24.02	Hotel Buildings - Non-Fire Resistive, 2 to 8 Stories
24.03	Hotel Buildings - Fire Resistive, 2 to 8 Stories
24.04	Hotel Buildings - Fire Resistive, 9 to 16 Stories
24.05	Hotel Buildings - Fire Resistive, 17 Stories & Over
25.01	Office Buildings - Non-Fire Resistive, 5 to 8 Stories (Load Bearing Walls)
25.02	Office Buildings - Fire Resistive, 5 to 8 Stories (Concrete Skeleton)
25.03	Office Building - Fire Resistive, 9 to 16 Stories (Concrete Skeleton)
25.04	Office Buildings - Fire Resistive, 17 Stories & Over (Steel Skeleton)
26.01	Bank Buildings - Single Purpose, Non-Fire Resistive, 1 Story
26.02	Bank Buildings - Single Purpose, Non-Fire Resistive, 2 to 4 Stories
26.03	Bank Buildings - Single Purpose, Fire Resistive, 1 Story
26.04	Bank Buildings - Single Purpose, Fire Resistive, 2 to 4 Stories
27.01	Theaters - Small Stage or No Stage, Low Cost Grade
27.02	Theaters - Small Stage or No Stage, Average Grade

Class
Number

Class Description

27.03	Theaters - Small Stage or No Stage, High Grade
27.04	Theaters - Full Stage De Luxe, High Grade
27.05 to 27.07	Theaters - Drive-In
28.01	Gasoline and Service Stations - Low Grade
28.02	Gasoline and Service Stations - Average Grade
28.03	Gasoline and Service Stations - Good Grade
29.01	Commercial Garages - Non-Fire Resistive, 1 Story, Low Cost Grade
29.02	Commercial Garages - Non-Fire Resistive, 1 Story, Average Grade
29.03	Commercial Garages - Fire Resistive, 1 Story Good Grade
29.04	Commercial Garages - Non-Fire Resistive and Fire Resistive, 2 to 4 Stories

PUBLIC & SEMI PUBLIC

30.01	Clubs and Lodge Buildings - Non-Fire Resistive, 2 Stories & Over
30.02	Clubs and Lodge Buildings - Fire Resistive, 2 Stories & Over
30.03	Golf and Country Club Buildings - 1 to 3 Stories
30.04	Race Track and Athletic Stadiums
31.02	Private Hospitals and Sanitariums - Fire Resistive
31.03	Public Hospitals and Sanitariums
32.01	Charitable Institutions
33.01	Religious Institutions
34.01	Governmental Institutions
36.01	Educational Institutions - public
36.02	Educational Institutions - private

INDUSTRIAL

40.00	Industrial - non-specified
40.01	Storage Warehouses - Wood and Masonry, 2 to 5 Stories
40.02	Storage Warehouses - Mill Type Construction, 2 to 5 Stories
40.03	Storage Warehouses - Reinforced Concrete or Steel Skeleton, Fire Resistive, 2 to 10 Stories
41.01	Industrial Buildings - Frame (Low Cost Sheds, etc.)
41.02	Industrial Buildings - Frame, 1 Story
41.03	Industrial Buildings - Masonry and Wood, 1 Story
41.04	Industrial Buildings - Masonry and Light Steel, 1 Story
41.05	Industrial Buildings - Steel Skeleton or Concrete, 1 Story
41.06	Industrial Buildings - Quonset and all Steel Buildings, 1 Story
42.01	Industrial Buildings - Frame (Ordinary or Joist Construction) 2 to 4 Stories

Class
Number

Class Description

42.02	Industrial Buildings - Wood or Steel and Masonry (Ordinary or Mill Construction) 2 to 6 Stories
42.03	Industrial Buildings - Reinforced Concrete or Steel Skeleton, Fire Resistive, 2 to 10 Stories
43.01	Industrial Buildings - Grain Elevator Storage Bins or Tanks
44.01	Industrial Buildings - Single Purpose
45.01	Greenhouses
47.01	Bulkheading, Piling, Piers, Wharves

AGRICULTURAL

51.02	Farm Sheds and Outbuildings
51.03	Silos

OPEN SPACE - IMPROVED

60.01	Park and Public Playground
62.01	Cemetery

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